TITLE 326 AIR POLLUTION CONTROL DIVISION

Proposed Rule
LSA Document #11-356

DIGEST

Amends 326 IAC 7-2-1, 326 IAC 7-4-2, 326 IAC 7-4-3, and 326 IAC 7-4-11 concerning sulfur dioxide (SO_2) emission limitations. Adds 326 IAC 7-1.1-3, 326 IAC 7-4-2.1, 326 IAC 7-4-3.1, 326 IAC 7-4-11.1, and 326 IAC 7-4-15 concerning the new 1-hour SO_2 National Ambient Air Quality Standard (NAAQS). Repeals 326 IAC 7-4-2, 326 IAC 7-4-3, and 326 IAC 7-4-11. Partially effective 30 days after filing with the Publisher and partially effective October 4, 2017.

HISTORY

First Notice of Comment Period: June 29, 2011, Indiana Register (DIN: 20110629-IR-326110356FNA).

Continuation of First Notice of Comment Period: September 25, 2013, Indiana Register (DIN: 20130925-IR-326110356FCA).

Second Notice of Comment Period: September 10, 2014, Indiana Register (DIN: 20140910-IR-326110356SNA).

Notice of First Hearing: September 10, 2014, Indiana Register (DIN: 20140910-IR-326110356PHA).

Change in Notice of Public Hearing: December 24, 2014, Indiana Register (DIN: 20141224-IR-326110356CHA).

Date of First Hearing: March 11, 2015.

PUBLIC COMMENTS UNDER IC 13-14-9-4.5

IC 13-14-9-4.5 states that a board may not adopt a rule under IC 13-14-9 that is substantively different from the draft rule published under IC 13-14-9-4, until the board has conducted a third comment period that is at least 21 days long.

REQUEST FOR PUBLIC COMMENTS

This proposed (preliminarily adopted) rule is substantively different from the draft rule published on September 10, 2014, at DIN: 20140910-IR-326110356SNA. The Indiana Department of Environmental Management (IDEM) is requesting comment on the entire proposed (preliminarily adopted) rule.

The proposed rule contains numerous changes from the draft rule that make the proposed rule so substantively different from the draft rule that public comment on the entire proposed rule is advisable. This notice requests the submission of comments on the entire proposed rule, including suggestions for specific amendments. These comments and the department's responses thereto will be presented to the board for its consideration at final adoption under IC 13-14-9-6. Comments may be submitted in one of the following ways:

(1) By mail or common carrier to the following address:

LSA Document #11-356 1-Hour SO_2
Susan Bem
Rules Development Branch
Office of Legal Counsel
Indiana Department of Environmental Management
Indiana Government Center North
100 North Senate Avenue
Indianapolis, IN 46204-2251

(2) By facsimile to (317) 233-5970. Please confirm the timely receipt of your faxed comments by calling the Rules Development Branch at (317) 233-8903.

(3) By electronic mail to sbem@idem.in.gov. To confirm timely delivery of submitted comments, please request a document receipt when sending the electronic mail. **PLEASE NOTE: Electronic mail comments will NOT be considered part of the official written comment period unless they are sent to the address indicated in this notice.**

(4) Hand delivered to the receptionist on duty at the thirteenth floor reception desk, Office of Legal Counsel, Indiana Government Center North, 100 North Senate Avenue, Indianapolis, Indiana.

Regardless of the delivery method used, to properly identify each comment with the rulemaking action it is intended to address, each comment document must clearly specify the LSA document number of the rulemaking.

COMMENT PERIOD DEADLINE

All comments must be postmarked, faxed, or time stamped not later than May 13, 2015. Hand-delivered comments must be delivered to the appropriate office by 4:45 p.m. on the above-listed deadline date.

Additional information regarding this action may be obtained from Susan Bem, Rules Development Branch, Office of Legal Counsel, (317) 233-5697 or (800) 451-6027 (in Indiana).

SUMMARY/RESPONSE TO COMMENTS FROM THE SECOND COMMENT PERIOD

The Indiana Department of Environmental Management (IDEM) requested public comment from September 10, 2014, through October 10, 2014, on IDEM's draft rule language. IDEM received comments from the following parties:

United States Environmental Protection Agency (U.S. EPA)
Duke Energy Indiana LLC (Duke)
Rolls Royce (RR)
Indianapolis Power and Light (IPL)
Wabash Valley Power Association, Inc. (WVPA)
Krieg Devault, on behalf of Hydraulic Press Brick (HPB)
Citizens Energy Group (CEG)
American Electric Power Service Corporation, on behalf of Indiana Michigan Power Company (I&M)
Indiana Energy Association (IEA)
Hoosier Energy Rural Electric Cooperative (HE)
Jeffrey Sprague (JS)
Sierra Club (SC)

Following is a summary of the comments received and IDEM's responses thereto:

Comment: At 326 IAC 7-4-3.1 (Vigo) and 326 IAC 7-4-15 (Pike) the draft rule states that "The emission limit is an arithmetic average of all the valid data for emission rates recorded from a continuous emission monitoring system on a one (1) hour basis". As written it makes it sound like the emission limit itself varies. A better statement may be "Compliance with the emission limits shall be determined by an arithmetic average. . .". (U.S. EPA)

Response: IDEM agrees and has reworded to make it clear that the averaging time applies to the method for demonstrating compliance using data from a continuous emission monitoring system (CEMS).

Comment: Indianapolis Power & Light (IPL)-Petersburg in Pike County is offered the choice of alternative sets of limits. It is important for enforceability purposes to assure that it is always clear which limits apply, by means of explicit requirements for reporting and recordkeeping to which limits apply. The rule does not provide clear provisions on data handling when the source switches from 1-hour limits to 30-day average limits, in particular whether the compliance determinations immediately following that switch are to be based in part on data from the period when the source was subject to the 1-hour limits. Unless Indiana can suitably address these concerns, IPL-Petersburg should only be subject to one set of limits. (U.S. EPA)

Response: IDEM has added language at 326 IAC 7-4-15(e) requiring the source to notify IDEM when switching from one set of limits to the other. When switching from complying with the 1-hour limit to the 30-day average limit IDEM will require compliance with the 1-hour limit until the first 30-day average emission rate is calculated so that there is no gap in compliance.

Comment: If any limits, besides IPL-Petersburg, may be met on a longer term average basis, any modeling impacts of the applicable sources would need to reflect the level of the hypothetical 1-hour limit that would be of comparable stringency to the longer term average limit. (U.S. EPA)

Response: As reflected in the draft rule sgSolutions has also requested a longer term average limit and IDEM has shared the data analysis to develop a comparable longer term limit with U.S. EPA.

Comment: U.S. EPA's nonattainment area planning guidance recommends that longer term average limits be accompanied by supplemental limits that help serve to minimize the frequency and/or magnitude of occasions with elevated emissions. The draft rule appears to provide no such supplemental limits. Indiana needs to address this part of the guidance. (U.S. EPA).

Response: The guidance provides an approach to develop emission limits based on averaging periods longer than 1 hour that are designed to have comparable stringency to a 1-hour average limit at the critical emission value. This is applicable for emission units that are monitored using continuous emissions monitoring data. The approach provided in the guidance was used to develop the alternative limits for IPL-Petersburg and sgSolutions.

Comment: It is reasonable for current SO_2 rules to be rescinded once replacement rules become effective. Future review may be warranted as to whether the replacement rules fully replace the current rules, to assure that the replacement does not inadvertently cause a relaxation of applicable rules. In Morgan County, it is not clear that the full set of units of IPL-Eagle Valley regulated under 326 IAC 7-4-11 are also regulated under the replacement rule at 326 IAC 7-4-11.1. (U.S. EPA)

Response: Units 1 through 6 at 326 IAC 7-4-11 will no longer be operating once 326 IAC 7-4-11 is repealed on January 1, 2017. IPL will be replacing the 6 units with two new combined cycle combustion turbines that are scheduled to come on-line in 2017. IPL plans to shut down the current units by April 1, 2016, the extended Mercury and Air Toxics Standards (MATS) compliance deadline.

Comment: Imposing hourly limits on pounds (lbs) of SO_2/MMBtu is overly conservative and should instead be

based solely on lbs of SO_2/hour. This approach is more accurate and is consistent with past state implementation plan (SIP) practices and better approximates the relationship between stack emissions and air quality impacts. Duke Energy modeled a typical electric generating unit at three load conditions. Results indicate that emission limits in lbs/MMBtu could increase as the power generated by the unit decreased and would still have the same impact on ambient air. Setting an emission limit in lbs/MMBtu for electric generating units based on high load operating conditions will require sources to comply with unnecessarily restrictive limits at lower loads.

U.S. EPA's April 2014 Guidance for 1-Hour Nonattainment Area SIP Submission does not support the establishment of an hourly lbs/MMBtu emission limit. This guidance document states that where a source operates at substantially less than the maximum design capacity and the changes in the stack parameters associated with the operating conditions could result in higher ground level concentrations, loads such as 50% and 75% of capacity should be modeled. IDEM should evaluate modeled impacts at less than maximum design capacity as needed to develop lbs/hr limits rather than imposing an overly conservative hourly lbs/MMBtu limit. (Duke)

Comment: The draft rule includes a dual form of emission limits: lbs/hr and lbs/MMBtu. Having two limits established with the same basis establishes double jeopardy that could result in two exceedances stemming from the same set of factors. (IPL)

Comment: Based on past history of the SO_2 NAAQS compliance demonstrations, there are cases where operating at rates less than full load may be the limiting condition for National Ambient Air Quality Standard (NAAQS) compliance and the April 23, 2014 U.S. EPA guidance appears to indicate that this possibility needs to be evaluated using an air quality model at multiple loads. IDEM has not provided any reference to supporting technical data that demonstrates the need for such a structure. The establishment of an alternate limit for a reduced operating rate must be done in an objective manner with technical support. Such a limit may not be a lb/MMBtu limit, but may be some form of a load based equation. (I&M) (IEA)

Response: IDEM included both limits (lbs/hr and lbs/MMBtu) based on information from the April 2014 guidance and from consultation with U.S. EPA Region V staff. Without information to show that there is not an increased impact when operating at reduced load, U.S. EPA Region V has advised to keep both limits for a boiler. If an affected source provides IDEM with a modeling analysis at different loads that shows decreased impacts when operating at reduced loads, IDEM may be able to remove the lb/MMBtu limit for that unit subject to U.S. EPA approval.

Comment: If IDEM proceeds with a final rule which requires a lbs/MMBtu limit then IDEM should allow the use of diluent capping for compliance with the limit. Diluent capping has already been allowed in 40 CFR Part 75 for calculating emissions of nitrogen oxide (NO_x) in lbs/MMBtu for compliance with the Acid Rain Program.

Diluent capping is used in Part 75 to allow sources reporting lbs NO_x/MMBtu to use either a minimum value of 5.0% CO_2 (for boilers), or a maximum value of 14.0% O_2 (for boilers) in the standard lbs NO_x/MMBtu equation at 40 CFR 75, Appendix F, Equations F-5 and F-6 to avoid extremely large lbs NO_x/MMBtu values during very low combustion periods, such as startup or shutdown. These diluent cap values can also be used in the standard heat input equation to calculate MMBtu/hr at 40 CFR 75, Appendix F, Equations F-15, F-16, F-17, and F-18. The values for the caps can be substituted in the equations for the actual measured CO_2 or O_2 values.

The use of diluent caps has been used in permits to comply with previous SIP limits (e.g., R. A. Gallaher Generating Station, Clark and Floyd County SIPs). Without the use of diluent cap provisions sources would nearly always exceed lbs/MMBtu limits during startup and shutdown unless the rule contained an exemption from meeting the emission limits during such conditions.

During these conditions, the diluent concentrations monitored in the stack gases are very close to ambient conditions (nearly zero for CO_2 and nearly 20.9% for O_2). The lbs/MMBtu equations divide by % CO_2 or divide by the value of 20.9% O_2 minus the measured %O_2, resulting in a lbs/MMBtu value that could easily be 5 to 15 times the hourly emission limit under normal (full) load conditions. Yet the lb/hr value during these startup or shutdown conditions could be significantly less than the allowable hourly emission rate. (Duke) (I&M) (IEA)

Response: IDEM is proposing a new subsection at 326 IAC 7-2-1 to make it clear that diluent cap methodology under 40 CFR 75 is allowed to determine compliance with SIP limits in Article 7.

Comment: Duke Energy is still evaluating the need for a longer averaging period and will work with IDEM if a longer averaging time is needed. Compliance with a one-hour averaging time can be difficult for facilities with widely varying operating conditions. Power plants need to respond to quickly changing conditions on the power grid. Complying with extremely short compliance periods can be problematic. (Duke)

Response: IDEM proposed a limit of 0.5 lbs/MMBtu and 1,499.5 lbs/hr for the Duke Energy – Wabash River Generating Station. The lbs/MMBtu limit is based on a control strategy of repowering Unit 6 from coal to natural gas with fuel oil backup. IDEM is not proposing the use of a SO_2 CEMS to demonstrate compliance since a repowered unit would not otherwise be required to monitor with SO_2 CEMS. Without CEMS, the current monitoring provisions at 326 IAC 7-2-1 require analysis of the sulfur content of fuel for demonstrating compliance with the lbs/MMBtu limit or stack testing to show compliance with the short term limit lbs/hr limit. These proposed compliance provisions may already address the source's need for a longer averaging period.

Comment: Section 192(a) of the Clean Air Act (CAA) requires that the SIP provide for attainment as

expeditiously as possible, but not later than five years from the effective date of the nonattainment designation. Since the effective date of the nonattainment designation is October 4, 2013, if necessary, the compliance date could be as late as October 4, 2018.

The Wabash River power plant is actively pursuing various alternatives to bring the site into SO_2 attainment while balancing the need for reliable, safe, and low cost electricity. As the company transitions to compliance, unexpected delays can occur which are beyond the control of the source. Indiana should keep with the statutory compliance date of October 4, 2018, and work with sources individually to comply as expeditiously as possible, but not later than October 4, 2018. (Duke)

Comment: The compliance date in the draft rule is January 1, 2017. IDEM based this date on U.S. EPA policy requiring one full calendar year of data showing compliance, in advance of the statutory compliance attainment date of October 4, 2018. However, there is no legal requirement to set the source compliance date in advance of the statutory attainment date. In fact, requiring sources to comply 21 months in advance of the statutory attainment date is contrary to the plain language of the Clean Air Act. Given the short time frame that states have had to develop SIPs for the 1-hour SO_2 standard following the release of U.S. EPA's guidance and the need for regulated utilities to perform required engineering and cost analyses and obtain approvals through the IURC, this January 1, 2017 deadline could be problematic. The commenter requests that IDEM set the source compliance date to no earlier than October 4, 2018. (IPL) (I&M) (IEA)

Comment: Even with an expedited schedule, if the process for designing emission controls would start about July 1, 2015, this would put the startup of a dry sorbent injection system sometime in late 2017 to early 2018 and a FGD system would be available for operation in the 2019 to 2020 time frame. (I&M) (IEA)

Response: As some of the commenters indicate IDEM based the January 1, 2017 compliance date on U.S. EPA guidance. The April 2014 guidance identified January 1, 2017, as the date sources are to begin complying with the attainment strategy in the SIP. Unless U.S. EPA indicates otherwise IDEM will continue to follow this expectation. U.S. EPA will be basing attainment determinations on modeling and/or 3 years of clean data. If sources wait until 2018 to install controls then there is less of a chance to have a design value meet the standard (based on years 2015 through 2017). At a minimum, at least one year of clean calendar year monitoring data is needed to demonstrate attainment.

Comment: The draft rule proposes to restrict boilers 0070-58, 0070-59, 0070-62, and 0070-63 at 326 IAC 7-4-2.1[(a)](3) to the use of natural gas only. Rolls Royce intends to use ultra-low sulfur diesel fuel oil in these boilers with a sulfur content of 0.0015% equivalent to 0.0015 lbs SO_2/MMBtu. Rolls Royce requests that this be reflected in the modeling and future rule proposals. (RR)

Response: IDEM amended the rule by removing the natural gas restriction and adding a limit of 0.0015 lbs/MMBtu for each of the four boilers listed. This limit will allow the use of either ultra-low sulfur diesel fuel oil or natural gas. The modeling was modified to account for the difference in allowable emissions for each boiler and the ability of the area to attain the standard is not impacted.

Comment: The draft rule at 326 IAC 7-4-2.1[(a)](3) proposes to restrict boiler 0070-65 to the use of natural gas only and boiler 0070-64 to the use of landfill gas only. Rolls Royce intends to use landfill gas or natural gas in both of these boilers and requests that the rule and associated modeling be modified accordingly. (RR)

Response: IDEM modified the modeling and rule as requested and the ability of the area to attain the standard is not impacted.

Comment: The draft rule at 326 IAC 7-4-2.1[(a)](3) proposes to limit the operation of the gas turbines to 1,000 hours per calendar year. This limitation does not allow for sufficient flexibility to accommodate potential testing demands. The commenter requests that the limitation be modified to an annual fuel limit of 2,611,000 gallons for the 12 engines combined (equivalent to 18.3 tons/year SO_2). This limit is equivalent to the proposed limit of 1,000 hours of operation of 12 engines per calendar year. (RR)

Response: U.S. EPA has indicated that a SIP that relies on modeling that limits a unit's operation to more than 500 hours per year would not be appropriate. This is based on the intermittent emissions policy for emergency generators that operate less than 500 hours per year. While the intermittent emissions policy is not the same situation for the gas turbines, it does provide a framework for use in this situation. The policy considers the hours of operation and not the equivalent amount of fuel used, therefore, the rule has not been modified to limit based on fuel use instead of hours of operation. U.S. EPA is concerned that if the emission unit was operated at reduced capacity, then the equivalent amount of fuel usage could allow for more hours of operation than was intended to be accounted for in the model. After further discussion Rolls Royce has indicated that they will operate the turbines with a lower sulfur content jet fuel of 0.05 lb/MMBtu. This lower limit models attainment with turbines operating at full capacity without a need to limit the number of hours of operation.

Comment: The draft rule at 326 IAC 7-4-2.1[(a)](3) limits the use of a rental generator to 500 hours per calendar year. Multiple rental generators may be used during the course of a calendar year and 500 hours does not provide needed operational flexibility. The fuel used in the generators is ultra-low sulfur diesel fuel with a 0.0015% sulfur content. The commenter requests that the rule specify the use of ultra-low sulfur diesel fuel and allow for a combined total fuel usage of 120,000 gallons a year (equivalent to 0.014 tons/year SO_2). (RR)

Response: IDEM amended the rule as suggested to remove the restriction on the number of operating hours

and instead limit the sulfur content of the fuel to 0.0015 lbs/MMBtu. This revised limit is lower than what was proposed during the Second Notice of Public Comment Period and models attainment, therefore there is no need to limit the amount of fuel burned.

Comment: Test cell 0070-N6 at 326 IAC 7-4-2.1[(a)](3) will be retained for research and development purposes. The commenter proposes that the unit be restricted to a fuel limit of 4,478,000 gallons per year which is equivalent to the 1000 hours of operation restriction in the draft rule language. (RR)

Response: U.S. EPA has indicated that a SIP that relies on modeling that limits a unit's operation to more than 500 hours per year would not be appropriate. This is based on the intermittent emissions policy for emergency generators that operate less than 500 hours per year. While the intermittent emissions policy is not the same situation for the test cell, it does provide a framework for use in this situation. The policy considers the hours of operation and not the equivalent amount of fuel used, therefore, the rule has not been modified to limit based on fuel use instead of hours of operation. U.S. EPA is concerned that if the test cell was operated at reduced capacity, then the equivalent amount of fuel usage could allow for more hours of operation than was intended to be accounted for in the model. After further discussion Rolls Royce has indicated that they will operate the test cell with a lower sulfur content jet fuel of 0.05 lb/MMBtu. Currently, the test cells at Rolls Royce are subject to the general fuel oil limit of 0.5 lbs/MMBtu at 326 IAC 7-1.1-2. A lower fuel sulfur limit will reduce emissions of SO_2 from the emission unit. IDEM is currently working with Rolls Royce to develop a modeling demonstration that supports attainment of the standard.

Comment: The 501k turbine at 326 IAC 7-4-2.1[(a)](3) is no longer at the facility and should be removed from the rule. (RR)

Response: IDEM modified the rule as requested.

Comment: The following engine test cells at Rolls Royce have been removed from the facility and Rolls Royce has already requested that they be removed from the Title V air operating permit: 0070-N3, 0070-N8, 0070-N9, 0070-N10, 0070-N11, 0070-N15, 0070-N17, 0070-N27, 0070-N32, 0070-N40, and 0070-N48. (RR)

Response: IDEM has removed these test cells from the modeling. When Rolls Royce renews their operating permit later this year these changes will be reflected in the permit.

Comment: The Second Notice of Public Comment Period references U.S. EPA's April 23, 2014 SO_2 implementation guidance to support the exclusion of emergency generator emissions from the modeling attainment demonstration and emission limitations.

The commenter supports the exclusion of emergency generator emissions but believes the exclusion of startup and shutdown periods is equally valid and consistent with this guidance. During startup and shutdown of the four units at Petersburg the flue gas desulfurization (FGD) units would not achieve full control until the startup of the units and associated FGD is complete. Consistent with the guidance, these periods of time are intermittent and of a limited amount of time during the year and as such would not contribute significantly to the annual distribution of emissions. The commenter requests that 326 IAC 7-4-15 include a limit of 500 hours per calendar year for bypass due to startup, shutdown, and CEM testing conditions and these hours should not be included in determining compliance with the emission limitations in 326 IAC 7-4-15(a) or 326 IAC 7-4-15(c) for the four Petersburg Station coal fired units. (IPL)

Response: U.S. EPA requires that the SIP limits apply during startup and shutdown; therefore, the proposed rule has not been revised as requested. The April 2014 guidance refers to another U.S. EPA Memorandum, "Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO_2 National Ambient Air Quality Standard" (Tyler Fox, March 1, 2011), for information on modeling of intermittent emissions (emergency generators, and/or intermittent emission scenarios, such as startup/shutdown operations). As stated in the NO_2 guidance, the treatment of intermittent emissions applies to dispersion modeling and has no effect on existing policies and guidance regarding excess emissions that may occur during startup and shutdown.

The proposed limits at 326 IAC 7-4-15 apply to both the main stack and the bypass stack for Unit 1 and Unit 2. U.S. EPA's guidance for emergency generator emissions applies to a very limited situation and not the use of bypass stacks. Monitoring provisions in 326 IAC 3-5-8(c) include exemptions for operation of the CEMS during monitoring system malfunctions and monitoring system quality assurance/quality control activities. Also, similar to what is allowed in the MATS rule, IDEM is proposing at 326 IAC 7-2-1 to allow the use of diluent cap methodology from 40 CFR 75 to help address some of the issues with including startup and shutdown emissions in determining compliance.

Comment: The commenter supports the proposed exclusion of emergency generator emission from the rule, but believes the exclusion of startup and shutdown periods is equally valid and consistent with the April 23, 2014 U.S. EPA guidance and the New Source Performance Standards (NSPS) that apply to some electric generating units, including AEP's Rockport Plant. (I&M) (IEA)

Response: While the NSPS and also the MATS rule excludes startup and shutdown emissions from the calculation for determining compliance, U.S. EPA has indicated that these emissions cannot be excluded from the SIP limit. Please see the previous response for additional information on startup and shutdown emissions.

Comment: Compliance can be based on using lower sulfur content fuels, source retirement, and in a few cases use of add-on controls. IPL's Petersburg Station is the only facility proposing to use add-on controls in

conjunction with a 30-day rolling average. The 30-day rolling average is an appropriate and necessary compliance option consistent with U.S. EPA guidance. The rule should include more specific details as to how the 30-day rolling average is to be computed especially with respect to non-operational days, startup/shutdown conditions, and CEM testing conditions. Compliance for each day should be calculated based on the SO_2 emissions during the previous 30 operational days (excluding periods of startup, shutdown, and CEM testing); days when the facility is not operating would not be included. (IPL)

Response: IDEM is proposing at 326 IAC 7-4-15(d) that the 30-day rolling average be calculated using a 30-boiler operating day rolling arithmetic average emission rate at the end of each boiler operating day using all of the quality assured hourly average continuous emission monitoring system data for the previous 30 boiler operating days. This is similar to the compliance provisions in the MATS rule except that MATS excludes startup and shutdown emissions from the determination of compliance. Monitoring provisions in 326 IAC 3-5-8(c) include exemptions for operation of the CEMS during monitoring system malfunctions and monitoring system quality assurance/quality control activities.

Comment: Data substitution requirements are particularly germane to 30-day average limits that are enforced on the basis of continuous emission monitoring. Michigan has been asking for U.S. EPA recommendations with respect to data substitution, and U.S. EPA will share those recommendations once they are available. (U.S. EPA)

Response: Similar to the MATS rule, IDEM is proposing that only quality assured continuous emission monitoring system (CEMS) data be used to calculate emission rates and therefore, is not proposing to allow inclusion of substitute data values derived from the missing data procedures of 40 CFR 75. While U.S. EPA has indicated that they will allow compliance with or without data substitution, since missing data is replaced with more conservative emission rates, it is not necessary for a rule not based on an emissions trading program.

Comment: IPL intends to convert Boiler 70 at the Harding Street Generating Station to use only natural gas and discontinue use of coal. Remove the proposed limit at 326 IAC 7-4-2.1[(a)](6)(E) and require the use of natural gas. The compliance language for Boiler 70 at 326 IAC 7-4-2.1[(a)](6)(M) in the draft rule can be removed. Higher limits for Gas Turbines 1, 2, 4, and 5 can be accommodated and IPL requests limits of 0.1 lbs/MMBtu. Remove Gas Turbine 3 from the list, it has discontinued operation. (IPL)

Response: IDEM has amended the rule as requested. IDEM also increased the lbs/hour limits for Gas Turbines 1, 2, 4, and 5 to account for the increased lbs/MMBtu limit. The modeling for Marion County was updated to include the revised limits and the ability of the area to attain the standard is not impacted.

Comment: The correct name for the source at 326 IAC 7-4-2(6) and 326 IAC 7-4-2.1[(a)](6) in the draft rule is Indianapolis Power & Light Company – Harding Street Generating Station. (IPL)

Response: IDEM amended the rule as requested.

Comment: The correct name for the source at 326 IAC 7-4-11 and 326 IAC 7-4-11.1 in the draft rule is Indianapolis Power & Light Company – Eagle Valley Generating Station. (IPL)

Response: IDEM amended the rule as requested.

Comment: The combined cycle units at 326 IAC 7-4-11.1 in the draft rule are combined cycle combustion turbines and include duct burners. (IPL)

Response: IDEM amended the rule as requested.

Comment: The limit for the tail gas incinerator at 326 IAC 7-4-3.1(a)(2) in the draft rule for sgSolutions, LLC should allow for a 30-day rolling average. (WVPA)

Response: IDEM is proposing a 30-day rolling average emission limit for the tail gas incinerator for sgSolutions based on analysis of past CEMS data for the unit and U.S. EPA guidance. IDEM has slightly modified the emission limit provided by sgSolutions. sgSolutions proposed a 30-day rolling average emission limit of 229.9 lbs/hour. U.S. EPA has requested that this limit be 230.6 lbs/hr based on a re-evaluation of the CEMS data that uses the average emissions rate of hourly emissions rates collected over the past 30 unit operating days. The analysis provided by sgSolutions averaged the daily emissions rates as an intermediate step before calculating the 30 day rolling average. IDEM is proposing in the rule the limit calculated by U.S. EPA, although, they are almost identical. IDEM has clarified in 326 IAC 7-4-3.1(c) that compliance will be determined calculating an average using all of the hourly CEMS data for the previous 30 operating days at the end of each operating day for a 30-day rolling average.

Comment: The pilot light for the process flare at 326 IAC 7-4-3.1(a)(2) for sgSolutions is expected to be lit 8,760 hours per year and will otherwise be intermittently used for flaring purposes. The intended need for the flare is to provide relief in the event the combined cycle unit is unable to utilize the syngas and/or the process has an event that prevents delivery of product to the combined cycle unit. The following hour limitations should apply instead of the proposed lb/hr limits: coal/syngas – 500 hours per calendar year (rolled each month) and natural gas – 1,000 hours per calendar year (rolled each month). (WVPA)

Response: IDEM agrees with an operating hour restriction instead of a lb/hr limit as suggested. Since U.S. EPA's policy on intermittent emission is limited to 500 hours per year the rule will limit use of the flare with coal/syngas with no restriction on the amount of hours with natural gas. Sulfur dioxide emissions from natural gas are not significant and do not impact the ability of the nonattainment area to attain the standard, therefore, it is not necessary to have an operating hour restriction for natural gas usage.

Comment: The State and U.S. EPA have designated Morgan County as nonattainment for SO_2 based on historic data while at the same time not incorporating the fact that the IPL - Eagle Valley Generating Station will convert to natural gas. Hydraulic Press Brick (HBP) understands that IDEM does not believe SO_2 emissions from HPB significantly contributed to elevated SO_2 readings at the monitoring station. This coupled with the installation of a limestone injection system at (HBP) will result in significant reductions in SO_2 for Morgan County. If the nonattainment designation stands without acceptance of measures by HBP to comply with the current limit of 6.0 lbs/MMBtu, then the source will be forced to a more stringent model-based standard that it cannot practically achieve, thus resulting in the business being forced to shut down.

While the SIP is a mandatory requirement under the Clean Air Act (CAA), the CAA also provides that the SIP include measures, as may be necessary, to be obtained through adoption of reasonably available control technology (RACT) or be otherwise appropriate. Once the limestone injection system is installed and IPL converts to natural gas, the appropriate emission limitation will be achieved through these specific and enforceable measures (the limestone injection system).

The Morgan County SO_2 attainment demonstration should be based on the fact that IPL is converting the Eagle Valley Generating Station from coal to natural gas, and that HPB will comply with its current limit by installing a limestone injection system. (HPB)

Comment: It is important that the rule impose appropriate limits for Hydraulic Press Brick. When emissions arising from sulfur contained in non-fuel material in the process are included, this source could exceed the emission thresholds proposed in the data requirements rule. Nonattainment guidance calls for assuring attainment throughout the nonattainment area (along with any affected area outside the nonattainment area), and it is the premise that sources that meet the size thresholds of the Data Requirements Rule for 1-Hour Sulfur Dioxide (SO_2) (DRR), that are within designated nonattainment areas will be addressed during the applicable nonattainment area planning. The plan needs to require reasonable controls at this facility. In general, the limits are expected to govern SO_2 emissions without regard to whether the origins are in fuel or other materials, but it is especially important that limits for this source clearly apply to total SO_2 emissions. (U.S. EPA)

Response: As U.S. EPA noted in their comment, HPB needs to be included in the attainment SIP with enforceable limits because it is an SO_2 emitting source in a nonattainment area. IDEM may have been able to exclude this source if the emissions were below the thresholds in the DRR rule proposed on May 13, 2014. There are 3 options in the proposed rule and the highest threshold in a metro area is 3,000 tons of SO_2 per year. The source emits SO_2 above the proposed threshold of 3,000 tons per year. IDEM will use the final DRR rule in the future to designate additional nonattainment areas in locations without an ambient monitor.

Operations at the HPB facility include the operation of two coal-fired rotary drum kilns used to expand shale into lightweight aggregate. Data from stack testing during June 2014 indicate that the emission rate for Kiln #4 is 5.68 lbs/MMBtu and for Kiln #5 is 9.21 lbs/MMBtu. IDEM has requested that the basis for the proposed emission rate for this rule be 50% of the emission rate measured during the June 2014 stack test. This level of control is based on what was determined to be achievable during a limestone injection control system pilot study in August 2014 on Kiln #5. Kiln #4 is controlled by a wet scrubber. HPB has estimated that the wet scrubber reduces SO_2 emissions by approximately 20%, therefore, uncontrolled emission from Kiln #4 are 7.10 lbs/MMBtu. IDEM is proposing limits in the rule at 326 IAC 7-4-11.1 of 3.6 lbs/MMBtu for Kiln #4 and 4.6 lbs/MMBtu for Kiln #5. Based on a capacity rating of 45 MMBtu/hr for Kiln #4 and 70 MMBtu/hr for Kiln #5 there are also proposed limits of 160 lbs/hr and 322 lbs/hr, respectively.

During January 2015, HPB conducted testing on the sulfur content of the rock shale at two locations at varying depths. The shale sulfur values were used to calculate the maximum theoretical uncontrolled SO_2 emissions that would occur at varying depths for each of the kilns. These values range from 6.23 lbs/MMBtu to 12.56 lbs/MMBtu. The high end of the range is due to a shale sample at greater depth in the mine in one of the locations. Along with other conservative assumptions HPB assumed a coal sulfur content of 5 lbs/MMBtu based on the current coal contract. Typically the coal sulfur contents are lower than what is allowed by contract with the supplier.

IDEM is proposing that HPB will conduct monthly testing of the shale sulfur content similar to the monthly sampling that is currently required for coal used in the kilns. HPB will be required to inject limestone at a rate sufficient to achieve the sulfur dioxide emission limits. IDEM will continue to work with HPB and U.S. EPA before final adoption to refine the compliance demonstration requirements as needed.

Comment: The permitted name for the source at 326 IAC 7-4-2 and 326 IAC 7-4-2.1 in the draft rule is Belmont Advanced Wastewater Treatment Plant. (CEG)

Response: IDEM amended the name as requested.

Comment: Incinerator 5, Incinerator 6, Incinerator, 7, and Incinerator 8 at 326 IAC 7-4-2 and 326 IAC 7-4-2.1 should be removed. These units have been demolished and are no longer at the facility. (CEG)

Response: IDEM has removed the demolished units from the rule language.

Comment: The "Emission Unit Description" column at 326 IAC 7-4-2.1(a)(2) in the draft rule should list incinerators 1, 2, 3, and 4 separately. Compliance is determined per incinerator, not at the main stack. The commenter recommends changing the column entry from "(A) Main Stack I1-I4" to one entry for each incinerator,

"(A) Incinerator 1; (B) Incinerator 2; (C) Incinerator 3; (D) Incinerator 4". Each incinerator would have the same emission limit. (CEG)

Response: IDEM has amended the rule to remove the reference to the main stack by listing all four incinerators separately in one entry with the same requirement applying to each incinerator.

Comment: In order to allow the emission units at 7-4-2.1(a)(1) (Citizens Thermal – Perry K) to combust other gas 1 fuels, as defined in 40 CFR 63, Subpart DDDDD the "emission limit" should be revised to read "burn natural gas or other gas 1 fuel as defined in 40 CFR 63, Subpart DDDD." This would allow the source the flexibility to combust other gaseous fuels of similar quality to natural gas as is allowed under 40 CFR 63, Subpart DDDDD. (CEG)

Response: After additional discussion with the source IDEM has amended the rule to allow for natural gas combustion in Units 12, 15, and 16 and a limit of 0.2 lbs/MMBtu for Units 11, 13, and 14. The modeling for Marion County was revised to include the amended limits and the ability of the area to attain the standard is not impacted.

Comment: The commenter requested a 60 day extension of the comment period to analyze the sulfur dioxide emission inventories and dispersion modeling used by IDEM to support the SO_2 emission limits in the draft rule. (JS)

Response: IDEM was not able to extend the comment period due to the time constraints with submitting the SIP to U.S. EPA.

Comment: The Indiana Environmental Rules Board should reject consideration and approval of the proposed sulfur dioxide emission limitations. IDEM has failed to support the emission limits with a technical analysis and reasoned explanation accompanying the proposed rule. IDEM has not provided a timely response to commenter's requests for modeling-related information and emissions inventory data to independently allow citizen review and comment on the technical analysis for the emission limits. IDEM has been disingenuous about seeking public comment by rejecting a reasonable extension of the public comment period in order to receive and review technical information not yet provided by IDEM. (JS)

Response: Once air program staff received the request for modeling information from IDEM's file room the request was promptly filled. While this information was not provided in time for submitting comments during the Second Notice of Comment Period there are additional opportunities to provide public comment during the hearings for preliminary and final adoption.

Comment: The Second Notice of Public Comment Period does not address the shortcoming of the American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) modeling system. The model for sources with wide low buildings (downwash) has not been corrected by U.S. EPA in any revisions to the AERMOD code. (I&M) (IEA)

Response: U.S. EPA has identified AERMOD as the preferred refined dispersion model for SIP revisions, New Source Review, and Prevention of Significant Deterioration. AERMOD model performance has been extensively evaluated and shown to provide generally unbiased estimates of 1-hour SO_2 concentrations across a wide range of scenarios. A presentation from the 10th Conference on Air Quality Modeling, held in 2012, evaluated AERMOD under the 1-hour NO_2 and SO_2 NAAQS. U.S. EPA evaluated AERMOD's performance based on 17 field studies, of which 7 modeled building downwash scenarios. Comparisons for downwash were made with the Industrial Source Complex Short Term (ISCST3) model and the downwash module within ISCST3: Plume Rise Model Enhancements (PRIME). The modeled and observed results showed AERMOD performed better than the ISCST3 and ISC-PRIME modeled results. All modeled results showed over-predictions, but the AERMOD results showed a better predicted to observed concentration comparison with other dispersion models. The presentation can be found at http://www.epa.gov/scram001/10thmodconf/presentations/2-8-Brode_10thMC_AERMOD_Evals_1hr-NO2-SO2_NAAQS_Final_3-25.pdf.

U.S. EPA has committed to engage in rulemaking to evaluate updates to Appendix W to 40 CFR 51 for individual and cumulative impact analysis, including the new 1-hour SO_2 NAAQS, and incorporate new analytical techniques. U.S. EPA is planning a proposed rulemaking to address revisions to Appendix W during the spring of 2015 with final rulemaking for the "Revisions to the Guideline on Air Quality Models" by the spring of 2016. Opportunity to comment to U.S. EPA on AERMOD can be made through this regulatory process.

Comment: IDEM proposed an emission limit for the two coal fired boilers at the Ratts Generating Station (Ratts) of 0.05 lbs/MMBtu each. The commenter refers to a section of the CAA that provides for SIP revisions to implement with RACT and provide for attainment of the NAAQS. The emission limits in the draft rule for Ratts are not consistent with RACT for similar coal-fired units. The SO_2 emission limitations in the draft rule are much more stringent than RACT. The RACT/BACT/LAER Clearinghouse has developed a range of limitations for coal fired boilers. The average in emission limitations for RACT is 0.23 lbs/MMBtu, which is considerably higher than the 0.05 lbs/MMBtu proposed for Ratts. Although, there are two entries in the Clearinghouse at 0.06 lbs/MMBtu, these boilers are unlike Ratts in type of boiler and in type of coal burned, plus when considering cost per ton of SO_2 removed, the cost component of RACT cannot be satisfied. IDEM should propose an emission limitation for Ratts that is consistent with RACT. (HE)

Comment: The proposed emissions limits for Ratts are the lowest of any source in the draft rule. There is no

technical or factual basis for this limit. Ratts is not even the highest emitter in the county, thus its impacts are not as great as other utilities with much higher draft SO_2 emission limits. IDEM should revise the draft SO_2 emission limits to be commensurate with the modeling and equitable among the sources in the nonattainment area. Should Hoosier Energy make a voluntary choice to shut down or idle one unit at Ratts, Hoosier Energy should receive the benefit of those emission reductions at the other Ratts unit, rather than IDEM reallocating this benefit to another source. (HE)

Comment: The Ratts units are unable to achieve the draft emission limit with the existing control equipment and coal availability to the units. Based on experience at the Merom Station, Ratts would not be able to achieve 0.05 lbs/MMBtu even if it installed a wet scrubber, which is BACT-level pollution control technology. Merom and Ratts combust coal of a similar sulfur content, but Merom is only able to achieve 0.10 lbs/MMBtu of SO_2 with consistency with a wet scrubber. IDEM's draft rule in effect unilaterally redefines Ratts because it cannot achieve the draft emission limit without a complete change in fuel. Hoosier Energy would be forced to convert both units to burn natural gas to achieve such low SO_2 levels. (HE)

Response: After further communication with the affected source, the source has indicated that the emission limits for Ratts should remain as proposed in the draft rule during the Second Notice of Comment Period. Additional planning and review of other regulations that affect this source has occurred since the time of the Second Notice. Additional time has allowed the source to evaluate its plans for compliance with the MATS rule.

Comment: In its May 2011 preliminary designations for the 2010 SO_2 NAAQS, IDEM included the Gibson generating facility in its list of sources contributing to nonattainment in Southwest Indiana. The Gibson facility was subsequently removed because data from a monitoring station showed compliance at that specific location only. Air dispersion modeling (provided as an exhibit to the comment letter) performed on Sierra Club's behalf shows that based on either currently allowable emissions, or measured actual emissions, the Gibson facility causes SO_2 impacts that exceed the 2010 SO_2 NAAQS. When modeling allowable emissions, the analysis shows that the Gibson facility, on its own, violates the 2010 SO_2 NAAQS in a portion of the designated nonattainment areas in Southwest Indiana. IDEM must ensure that the entire nonattainment area in Daviess and Pike counties achieves compliance with the 2010 SO_2 NAAQS, not just at a specific monitoring location. On the basis of this alone, IDEM must impose SO_2 limits on the Gibson facility in this rulemaking. IDEM's responsibility under the CAA and the Indiana SIP is broader than simply ensuring compliance with the 2010 SO_2 NAAQS within the areas already designated as nonattainment. When modeling with allowable or actual emissions, the Gibson facility violated the 2010 SO_2 NAAQS over a broad swath of Southwest Indiana. IDEM should ensure attainment of the 2010 NAAQS throughout this area. (SC)

Response: Gibson County was initially recommended to be designated as nonattainment (based on 2008 through 2010 monitoring data) for the 1-hour SO_2 NAAQS on May 11, 2011. Initial modeling for all SO_2 sources in the proposed nonattainment area designations was conducted by IDEM to determine 1-hour SO_2 modeled impacts. The modeling was based on information provided through surveys that IDEM sent to companies throughout the state to gather emissions, stack parameters and facility information. The intent of this modeling was to identify SO_2 sources that would need to be accounted for once final 1-hour SO_2 nonattainment area designations were made. Preliminary modeling for Duke Energy Indiana – Gibson Generating Station (Duke-Gibson) showed 1-hour SO_2 impacts in the Gibson County nonattainment area; however, U.S. EPA modeling guidance was not available at that time so the modeling was not approved by U.S. EPA.

A technical addendum to Indiana's initial 1-hour SO_2 nonattainment recommendations was submitted on January 6, 2012, in response to the release of the draft SO_2 implementation guidance "Guidance for 1-Hour SO_2 NAAQS State Implementation Plan (SIP) Submissions" published on October 3, 2011. Based on the draft guidance, Indiana requested to update the preliminary 1-hour SO_2 nonattainment area recommendations from county to township boundaries for nonattainment. Montgomery Township was recommended as the 1-hour SO_2 nonattainment area boundary in Gibson County as it contains the SO_2 monitor (based on 2008 through 2010 monitoring data) which registered the 1-hour SO_2 NAAQS violation as well as the Duke – Gibson facility. Duke – Gibson represents the largest upwind SO_2 source in the county.

Indiana submitted a technical addendum on April 26, 2012 which evaluated all monitored SO_2 values throughout the state from 2009 through 2011. This quality-assured data taken from the Gibson Coal Road SO_2 monitor (source-oriented monitor to Duke-Gibson), showed current 1-hour SO_2 design values below the NAAQS of 75 parts per billion (ppb). It should be noted that four of the five nonattainment area SO_2 monitors are source-oriented to best capture SO_2 impacts. As a result, Indiana updated its 1-hour SO_2 designation recommendations to U.S. EPA to classify Montgomery Township, Gibson County from nonattainment to unclassifiable and U.S. EPA accepted this recommendation. The table below shows the area continues to maintain its three-year design value below 75 ppb.

Three-Year Design Values (ppb)						
Monitor	**Monitor ID**	**2008-2010**	**2009-2011**	**2010-2012**	**2011-2013**	**2012-2014**
Gibson Coal Road	180510002	76	69	73	69	73[a]

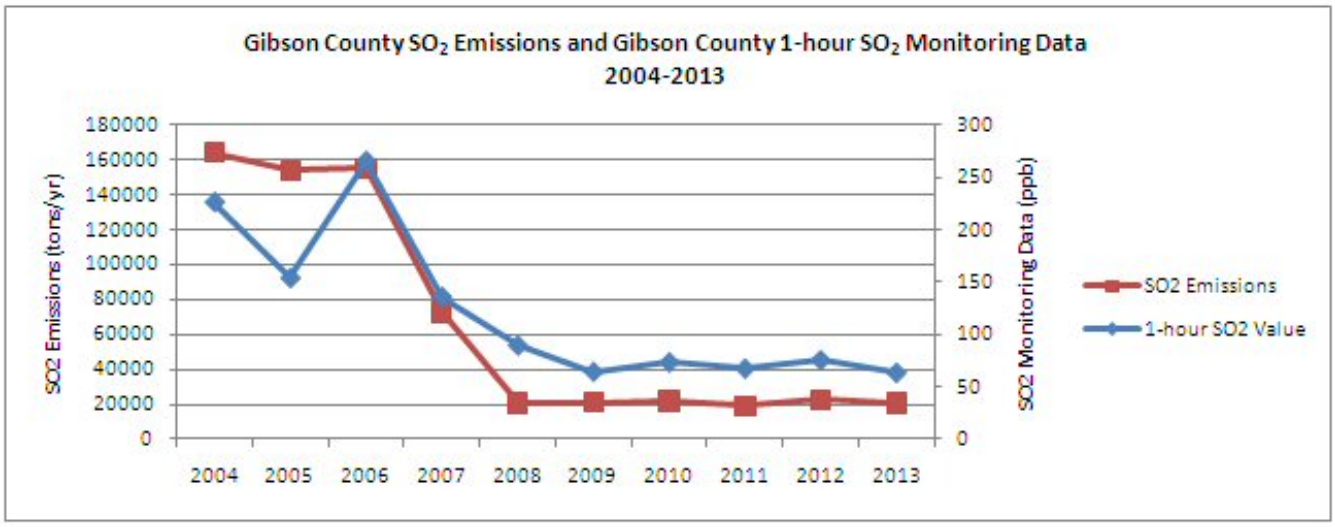
[a] Quality assured data through September 30th, 2014

As shown in the table below, the annual 99th percentile 1-hour SO_2 values at the Gibson Coal Road SO_2 monitor has remained low over the past five years.

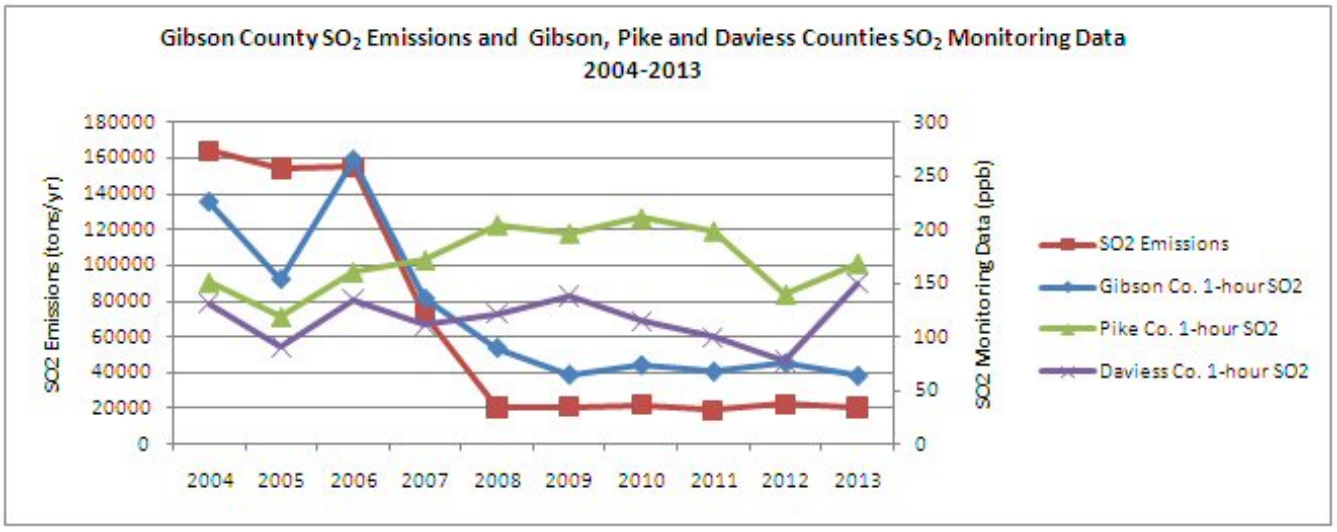
99th Percentile Values from 2008-2014 (ppb)								
Monitor	**Monitor ID**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
Gibson Coal Road	180510002	90	65	74	68	76	64	78[b]

[b] Quality assured data through September 30th, 2014

The 1-hour SO_2 design values measured at the Gibson Coal Road SO_2 monitor, located downwind of Duke-Gibson, have trended downward over the past several years and when U.S. EPA made its final 1-hour SO_2 nonattainment area designations, the 1-hour SO_2 design value at the Gibson County monitor registered below the 1-hour SO_2 NAAQS of 75 ppb. SO_2 emissions from sources within Gibson County have trended downward over the past 10 years, reflecting emission reductions resulting from state and federal rulemakings. Significant reductions in SO_2 emissions occurred in 2007 and 2008 and have remained at lower levels. The 99th percentile of the 1-hour SO_2 monitoring data taken from the Gibson County monitor has drop dramatically over the same time period as well. SO_2 monitoring data and SO_2 emissions for Gibson County correlate very well over the past 10 years, as shown in the chart below.

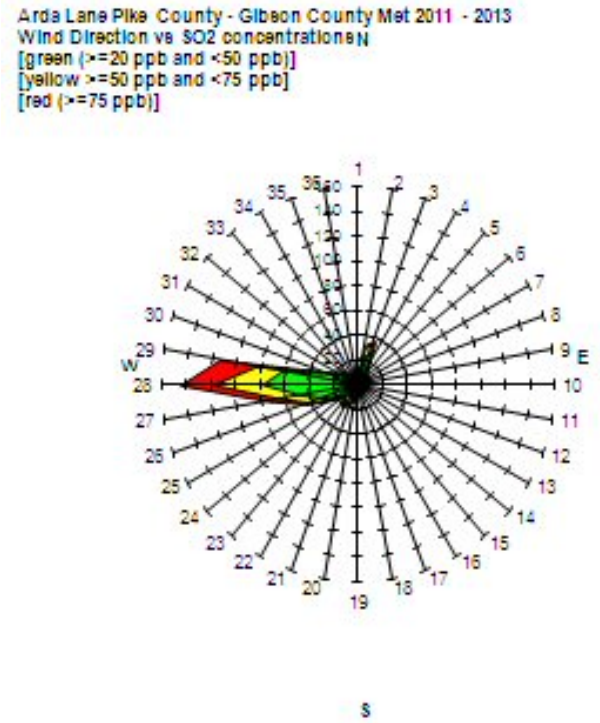


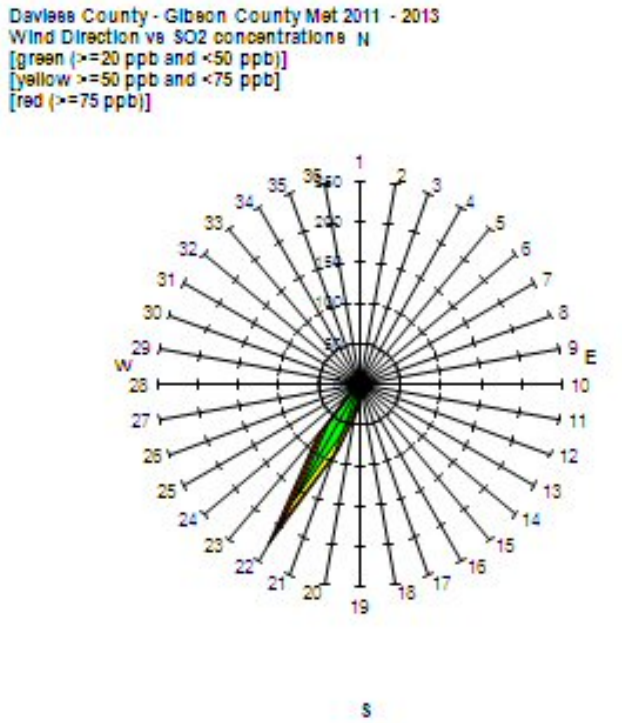
The chart below shows Gibson County SO_2 emissions from 2004 through 2013, showing the downward trend of emissions from sources located in the Gibson County. When the 99th percentile of the 1-hour SO_2 monitoring data for Pike and Daviess Counties are added to the chart, it clearly shows 1-hour SO_2 values are independent of Gibson County emissions as the 99th percentile 1-hour SO_2 monitoring values at Pike and Daviess County monitors have remained much higher.



For comparison purposes, the Pike and Daviess Counties' 99th percentile 1-hour SO_2 monitoring data has shown steady to increasing values over the same period. This would indicate that the Gibson County emissions do not have an impact on the Pike and Daviess Counties' 1-hour SO_2 nonattainment areas.

Further proof can be found in cumulative pollution roses, created to show the direction from which 1-hour SO2 monitored values above 20 ppb at the Pike and Daviess County SO_2 monitors were measured. The meteorological data used for this analysis was taken from the Duke - Gibson meteorological station in Gibson County from 2011 through 2013. The frequency of higher 1-hour SO_2 concentrations occurring when winds blew from the west at the Pike County SO_2 monitor and higher 1-hour SO_2 concentrations occurred when winds were blowing from the south-southwest at the Daviess County SO_2 monitor were overwhelming. Prevailing wind directions at both SO_2 monitors point to impacts of the emissions from IPL-Petersburg and Hoosier Energy R.E.C, Inc. – Frank E. Ratts Generating Station.





The monitoring data from the previous six years shows lower 1-hour SO_2 impacts from Duke-Gibson on the Gibson County SO_2 monitor. Due to the fact that the Gibson County SO_2 monitor has reached attainment of the 1-hour SO_2 NAAQS in 2011 and continues to be in attainment, IDEM is satisfied that SO_2 impacts from the Duke-Gibson facility will not significantly impact surrounding SO_2 monitors or 1-hour SO_2 nonattainment areas. SO_2 sources located within the Pike and Daviess County nonattainment areas are most responsible for the 1-hour SO_2 values at those monitors. SO_2 sources in surrounding counties are accounted for within representative 1-hour SO_2 background concentrations, based on guidance supplied in Appendix A of the "Guidance for 1-Hour SO_2 Nonattainment Area SIP Submissions" dated April, 2014. The proposed Data Requirements Rule will provide a means to characterize air quality in the attainment and unclassifiable areas for future area designations for the 1-hour SO_2 NAAQS. This federal rulemaking is scheduled to be finalized by the summer of 2015 and will encompass all large SO_2 sources throughout the state that reside in areas designated as attainment or unclassifiable, including the Duke-Gibson facility.

Comment: Sierra Club's modeling shows that based on either currently allowable or measured actual emissions, the IPL-Petersburg facility creates SO_2 emissions that exceed the 2010 SO_2 NAAQS (modeling report provided with comment letter). This analysis relied on several conservative assumptions and, therefore, the impacts are likely understated. IDEM's decision to require more stringent SO_2 limitations for this facility is, therefore, entirely correct. Sierra Club's modeling shows, however, that IDEM's emission limits in the draft rule are not adequate to assure compliance with the NAAQS throughout Southwest Indiana. The Sierra Club analysis shows total maximum impact based on the proposed 1-hour limit of 203.7 µg/m^3. This level exceeds the 2010 SO2 NAAQS. IDEM's proposed 1-hour limitation for the IPL-Petersburg facility should therefore be made more stringent, with the 30-day limitation necessarily tightened as well. If Gibson's emissions are considered, the impact in the nonattainment area is even greater. (SC)

Response: The modeling that U.S. EPA reviews as part of the attainment demonstration is the modeling prepared by IDEM. The key difference in results between modeling done by Sierra Club and IDEM is the concentration used for background. The background concentration used by IDEM is 22.5 µg/m^3 and the

commenter's analysis used 36.6 µg/m^3. The value that the commenter used appears similar to the Vanderburgh County Roth Road monitor with a 3 year design value (2010-2012) of 37.6 µg/m^3. IDEM's development of a background concentration took into account data from a different monitor located closer to the source. Also, the monitoring data used for background is evaluated to see if it is impacted by the source being modeled to avoid double counting of emissions from the source. IDEM used a background concentration value of 22.5 µg/m^3 in Daviess County and 25.9 µg/m^3 in Pike County. Gibson's emissions are already considered as part of the background concentration for the nonattainment area.

SUMMARY/RESPONSE TO COMMENTS RECEIVED AT THE FIRST PUBLIC HEARING

On March 11, 2015, the Environmental Rules Board (board) conducted the first public hearing/board meeting concerning the development of amendments to 326 IAC 7. Comments were made by the following parties:

Dan Weiss, Duke Energy Indiana (Duke)

Justin Barrett, Indianapolis Power & Light (IPL)

Vicki Wright, Krieg Devault, on behalf of Hydraulic Press Brick (HPB)

Jodie Perras, Sierra Club (Sierra Club)

Following is a summary of the comments received and IDEM's responses thereto:

Comment: The compliance date in the draft rule is January 1, 2017. Section 192(a) of the Clean Air Act (CAA) requires that the state implementation plan (SIP) provide for attainment as expeditiously as possible, but not later than five years from the effective date of the nonattainment designation. Since the effective date of nonattainment is October 4, 2013, if necessary, the compliance date could be as late as October 4, 2018. Duke Energy Indiana understands the need to bring areas into attainment as expeditiously as possible, however, in the case of the Wabash River power plant, the company is actively pursuing various alternatives to bring the site into SO_2 attainment while also balancing the need for reliable, safe, and low cost energy. As the plant transitions to compliance unexpected delays could occur beyond the control of the source. Duke Energy Indiana urges IDEM and the board to keep the statutory compliance deadlines of October 4, 2018, and work with sources individually to comply as expeditiously as possible, but not later than October 4, 2018. (Duke)

Comment: The proposed SO_2 SIP rules impact all three of IPL's generating stations, including the Harding Street Generating Station in Indianapolis (Marion County), the Eagle Valley Generating Station in Martinsville (Morgan County), and the Petersburg Generating Station in Petersburg (Pike County). IPL's compliance plan for these facilities includes ceasing the use of coal at the Harding Street plant and retiring two of the oil fired units. For Eagle Valley, the compliance plan includes retiring all of the oil and coal fired units and replacing them with two combined cycle gas turbines. For the Petersburg plant, the plan includes potential improvements to the flue gas desulfurization (FGD) system, also known as scrubbers. There are two issues where U.S. EPA guidance is either inconsistent with the requirements of the CAA or appears to be somewhat arbitrary in interpreting the SO_2 implementation guidance published in April of 2014. The first issue relates to the required compliance deadline of January 1, 2017. The deadline for meeting the 1-hour standard under the CAA is October 4, 2018. IDEM has responded to this issue, but IDEM's response indicated that U.S. EPA's guidance identified January 1, 2017, as the date sources are to begin complying with the attainment strategy and that unless U.S. EPA indicates otherwise, IDEM will continue to follow this interpretation. IPL does not believe that there is any legal requirement to the source compliance date in advance of the statutory attainment date, therefore there is no legal requirement that this date be set for January 1, 2017. U.S. EPA's guidance specifically states that the guidance provides nonbinding recommendations on a wide range of issues that are likely to arise as states develop nonattainment SIPs for the 1-hour SO_2 NAAQS. Requiring sources to comply 21 months in advance of the statutory attainment date is contrary to the actual plain language of the CAA. The CAA states that although U.S. EPA is responsible for promulgation of air quality standards, the primary responsibility for meeting these standards rests with the State and it is up to the State as to how to comply with the standards. IDEM does have the power to interpret the deadline as October 4, 2018. Given the short time frame that states have had to develop SIPs for the 1-hour SO_2 standard following the release of the guidance and the need for regulated utilities to plan for compliance, the January 1, 2017, deadline may be problematic. IPL requires a certain amount of time to perform engineering and cost analysis, and obtain approvals through the Indiana Utility Regulatory Commission. Setting a final compliance date of October 4, 2018, could result in needing data as showing compliance in 2019, 2020, and 2021, for some areas to support an area being redesignated to attainment; however, the alternative of requiring a compliance date of January 1, 2017 may result in the inability to comply without ceasing operations. IPL requests October 4, 2018 as the source compliance date throughout the draft rule. (IPL)

Comment: Sierra Club would oppose any effort to extend the compliance deadline and believes that the sources can comply with the rule as written. (Sierra Club)

Response: The information provided by U.S. EPA in the April 2014 guidance document is based on CAA requirements and the codified SO_2 national ambient air quality standard (NAAQS). Simply stated, the attainment date for sulfur dioxide nonattainment areas as provided for in Section 192(a) of the CAA is no later than five years from the date of the nonattainment designation. For the currently designated nonattainment areas, this nonattainment date is October 4, 2018. For an area to demonstrate attainment on October 4, 2018, the codified

SO_2 NAAQS requires the monitoring data from the three previous calendar years be used to determine whether the area was at or below the standard for attainment. Section 172(a)(2)(C) allows states to request up to two one-year extensions of the attainment date if it can be shown that the State has complied with the applicable implementation plan and monitoring data shows compliance with the standard. This is why the guidance states that, at a minimum, the compliance date needs to be one calendar year in advance of the attainment date. If the compliance date is extended to a date later than January 1, 2017, the necessary monitoring data would not be available to show attainment in 2018 and Indiana will not be able to avail itself of the extensions. An approvable attainment SIP must demonstrate that the attainment strategy includes enforceable emission limits that provide for attainment by the codified deadline. Based on consultation with U.S. EPA, Indiana's attainment SIP would not provide for attainment by the October 4, 2018 deadline if the emission limits are effective any date later than January 1, 2017, and would therefore not be approvable. Should the state submit a SIP than is not approvable, Indiana would likely be subject to a Federal Implementation Plan and more stringent requirements than those currently in place for SO_2 nonattainment areas. As mentioned by the commenter, the CAA also requires compliance expeditiously as possible. Affected sources should have the necessary plans in place or control equipment already installed to meet the Mercury and Air Toxics Standards (MATS) rule compliance date of March 2016. IDEM notes that the board made a motion and adopted a compliance date of October 4, 2017, in the proposed rule. IDEM will continue to work with affected sources and U.S. EPA to gather additional information concerning this matter before final adoption.

Comment: During startup and shutdown of the four units at the IPL Petersburg plant, the scrubbers would not achieve full control until the startup of the units and associated scrubber is complete. This process takes time, upwards of a few hours. As such, where the scrubbers are relied on for compliance, the source cannot ensure compliance during startup or shutdown conditions. An exemption is needed for a small number of hours per year to accommodate this reality. Excluding this number of hours is consistent with U.S. EPA guidance which specifically addresses the exclusion of startup and shutdown periods since these periods of time are intermittent and of a limited amount of time during the year. Emissions during these brief periods would not contribute significantly to the annual distribution of emissions. U.S. EPA has, however, advised IDEM that excluded hours for startup and shutdown emissions is not acceptable. The commenter proposes limiting startup and shutdown, and continuous emission monitoring (CEM) testing conditions to 500 hours per year at 326 IAC 7-4-15 and that the emissions during these time frames should not be included in determining compliance with the emission limitations in either 326 IAC 7-4-15(a) or (d). The position taken by U.S. EPA Region V staff is contrary to the April 2014 guidance. (IPL)

Response: IDEM has discussed the concept of intermittent emissions with U.S. EPA multiple times throughout this rulemaking in regards to this situation and in terms of other emission units that could be regarded as intermittent. U.S. EPA makes a distinction between intermittent emissions that can be scheduled with some degree of flexibility, versus intermittent emissions that cannot be scheduled. As stated in the Summary/Response to Comments from Second Comment Period, the April 2014 guidance refers to guidance issued by U.S. EPA on March 1, 2011, that addresses the modeling of intermittent emissions. The March 2011 guidance clearly states that the treatment of intermittent emissions applies to dispersion modeling and has no effect on existing policies and guidance regarding excess emissions that may occur during startup and shutdown. All emissions are subject to the applicable emission limit and may be subject to enforcement action regarding such excess emissions, regardless of whether a portion of those emissions are not included in the modeling demonstration based on the guidance provided. Compliance during startup and shutdown scenarios has recently received additional attention by U.S. EPA. On February 12, 2013, U.S. EPA proposed a rule to ensure that states have plans in place that require industrial facilities to follow air pollution rules during times when the facility is starting up or shutting down, or when a malfunction occurs ("SSM SIP Call"). IDEM will continue to work with U.S. EPA between now and final adoption to address any remaining issues.

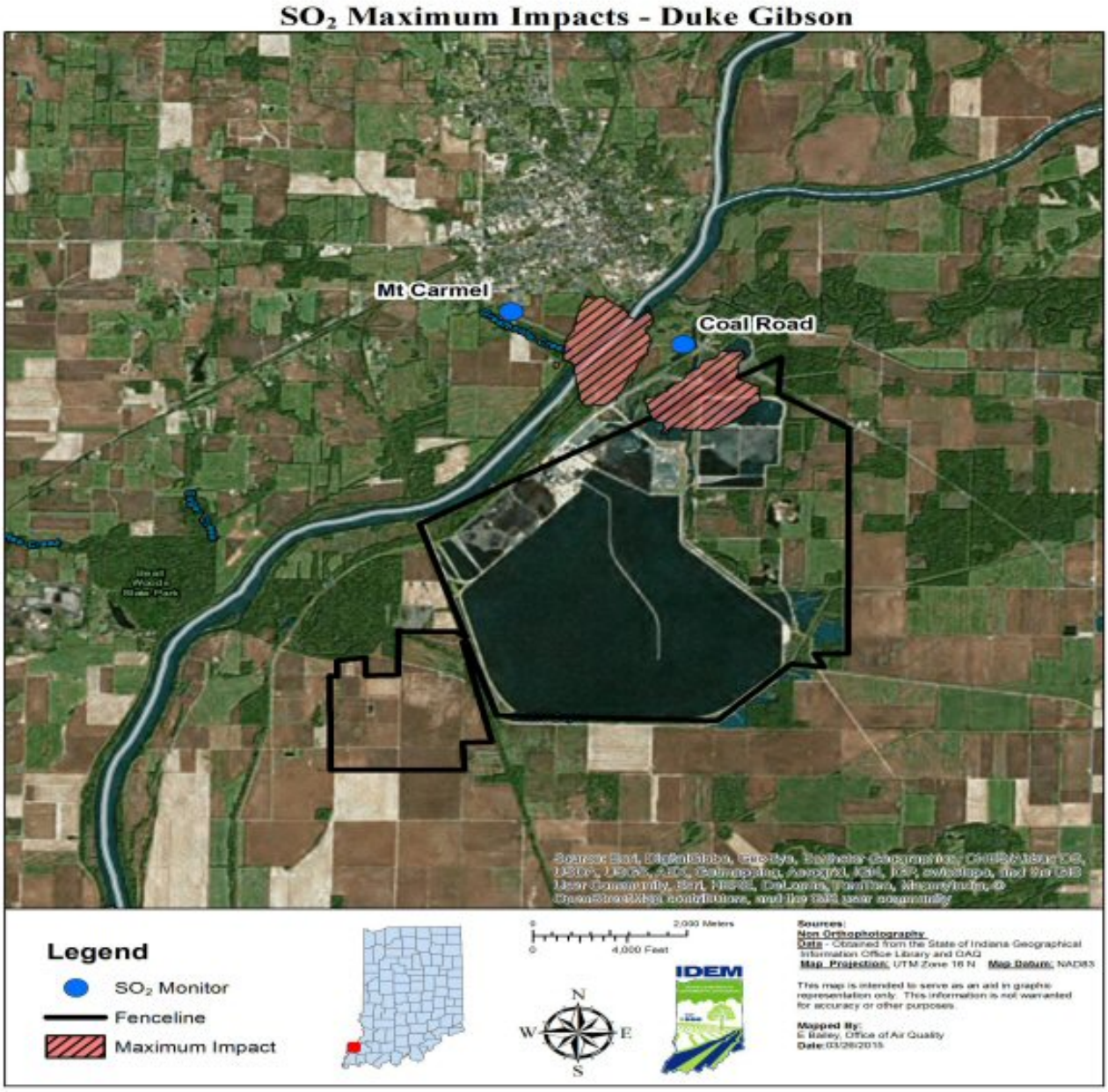
Comment: Hydraulic Press Brick is a smaller business with unique issues. The source understands that there still needs to be work done in regards to specifying recordkeeping and testing requirements in the rule. It is important that U.S. EPA agrees with the specific requirements included in the rule. (HPB)

Response: IDEM will continue to work with U.S. EPA to refine the rule language before final adoption.

Comment: The commenter appreciates that Indiana appears to be on track to propose this rule by the April deadline, but suggests that the rule in some places isn't strong enough. When the rule is fully implemented by 2017 air quality will improve in some parts of Indiana, it will improve the health of people. The proposed rule, though, unless it's revised, is missing a big opportunity, by not mandating emission reductions in Gibson County for Duke's Gibson generating plant which is a huge source of SO_2 and other harmful air pollutants. IDEM's own modeling shows that this plant impacts the 2010 SO_2 NAAQS in Gibson County. Modeling done by the Sierra Club confirms that fact and further shows that the plant on its own violates the SO_2 standard over a broad swath of southwest Indiana. Right now people living near the Gibson County plant are exposed to SO_2 levels that U.S. EPA has determined are dangerous. In terms of the Duke Gibson plant, there are two fundamental problems with IDEM's approach to the plant. First, the Gibson Coal Road monitor is placed in an inappropriate place to measure the SO_2 levels coming out of the Gibson facility. Initially IDEM designated Gibson County as unclassifiable and

then correctly designated part of the county as nonattainment, but later changed it to unclassifiable based on this monitor. This monitor is placed in a location where the model doesn't find exceedances and had it been placed elsewhere it might have clearly showed exceedances. Because the monitor does not appear to properly capture the emissions, IDEM should reconsider its decision to rely on this monitor to classify the entire county and that's particularly important because here the monitor itself shows that air quality is on the cusp of nonattainment. IDEM numbers show that for the last three months of 2014 that the Gibson Coal Road monitor may actually show a violation of the standard. There's really no safety margin in Gibson County and this problem will have to be addressed later, if not now. It would be better to include some controls on the Gibson County plant in this rule. Second, the Duke Gibson plant also affects the downwind Pike and Daviess County nonattainment area. The Sierra Club modeling shows emissions from the Gibson plant itself would significantly contribute to the NAAQS nonattainment in Daviess and Pike Counties. IDEM has commented that the Gibson County SO_2 emissions and monitored SO_2 levels have trended downward over the last 10 years, but there's no doubt that there has been no downward trend over the last five years and, in fact, since 2009 the SO_2 design value and monitored value levels have actually trended upward in Gibson County. The commenter believes that the refusal to regulate Gibson is, therefore, premised on a downward trend in SO_2 emissions that halted approximately five years ago and since then there is no downward trend at all. Absent regulation, SO_2 levels should be expected to remain where they have been at levels that violate the NAAQS in Gibson County and that also significantly contribute downwind to Pike and Daviess Counties. (Sierra Club)

Response: The Gibson Coal Road monitor, along with a monitor in Mount Carmel, Illinois, and the Gibson Tower monitor were used to satisfy the monitoring requirements in Southwest Indiana. The Gibson Coal Road monitor was the only violating monitor identified in the original nonattainment area recommendations to U.S. EPA on January 6, 2012, and now shows attainment. This rulemaking only considers nonattainment areas based on monitoring. Monitoring data is evaluated based on comparison to whether it is at or below the standard, not whether the values continue to decline or stay stagnant. The proposed Data Requirements Rule will provide a means to characterize air quality in the unclassifiable areas for future area designations. In addition, a March 2, 2015, Sierra Club federal consent decree puts in place an additional process to characterize areas with SO_2 sources emitting over 16,000 tons per year. Designations for these areas will be made by July 2, 2016. IDEM considers the Gibson Coal Road monitor a source oriented monitor. As can be seen in the following map, maximum concentrations from the Gibson facility are predicted, based on modeling, to be in the location of the monitor using the most recent five years of meteorological data. Exact locations of maximum emissions are going to vary based on the meteorological conditions. Some maximum predicted concentrations are within the fence line for the facility (thick black line on map).



Comment: The commenter supports IDEM's decision to require the IPL Petersburg plant to give notice regarding whether it will comply with the hourly or 30-day limits. Rules that allow a source to switch between compliance alternatives without notice to IDEM or the public make it difficult for the regulators and the public to track compliance, it is important for enforceability purposes to ensure that it's always clear which limits apply to a plant at any one time. (Sierra Club)

Response: IDEM appreciates the support.

Comment: IDEM should revise downward its emission limits for IPL Petersburg. Sierra Club's modeling shows that IDEM's proposed emission limits for the Petersburg plant are not adequate to assure compliance with the NAAQS throughout southwest Indiana. Sierra Club modeled the proposed Petersburg emission limits with the lowest measured background concentration anywhere in the state and the analysis showed a total maximum impact that exceeds the standard. IDEM's proposed 1-hour limits for the Petersburg plant should be made more stringent with the 30-day limit tightened as well. (Sierra Club)

Response: While the commenter may have used the lowest measured background concentration, IDEM develops a background concentration for the nonattainment area by backing out the modeled concentrations from the source to avoid double counting when adding the background concentration to the modeled values for the nonattainment area. As noted in the Summary/Response to Comments from Second Comment Period, this results in a different background concentration in the modeling that will be used as part of the technical support

for the attainment demonstration that will be submitted to U.S. EPA for SIP approval.

326 IAC 7-1.1-3; 326 IAC 7-2-1; 326 IAC 7-4-2; 326 IAC 7-4-2.1; 326 IAC 7-4-3; 326 IAC 7-4-3.1; 326 IAC 7-4-11; 326 IAC 7-4-11.1; 326 IAC 7-4-15

SECTION 1. 326 IAC 7-1.1-3 IS ADDED TO READ AS FOLLOWS:

326 IAC 7-1.1-3 Compliance date

Authority: IC 13-14-8; IC 13-17
Affected: IC 13-15; IC 13-17

Sec. 3. The emission limitations in 326 IAC 7-4-2.1, 326 IAC 7-4-3.1, 326 IAC 7-4-11.1, and 326 IAC 7-4-15 are effective October 4, 2017.

(Air Pollution Control Division; 326 IAC 7-1.1-3)

SECTION 2. 326 IAC 7-2-1 IS AMENDED TO READ AS FOLLOWS:

326 IAC 7-2-1 Reporting requirements; methods to determine compliance

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11
Affected: IC 13-14-8; IC 13-15; IC 13-17

Sec. 1. (a) As used in this article, "weighting factor" means the daily quantity of coal bunkered or megawatt generation or other appropriate measure of the output of a combustion source.

(b) As used in this article, "rolling weighted average sulfur dioxide emission rate" means the summation of the average sulfur dioxide emission rate times the daily weighting factor divided by the summation of the weighting factors.

(c) Owners or operators of sources or emissions units subject to 326 IAC 7-1.1, 326 IAC 7-4, or 326 IAC 7-4.1 shall submit to the commissioner the following reports based on fuel sampling and analysis data obtained in accordance with procedures specified under 326 IAC 3-7:

(1) Fuel combustion sources with total coal-fired heat input capacity greater than or equal to one thousand five hundred (1,500) million British thermal units (MMBtu) per hour shall submit quarterly reports of the thirty (30) day rolling weighted average sulfur dioxide emission rate in pounds per MMBtu. Records of the daily average coal sulfur content, coal heat content, weighting factor, and daily average sulfur dioxide emission rate in pounds per MMBtu shall be submitted to the department in the quarterly report and maintained by the source owner or operator for a period of at least two (2) years.

(2) Fuel combustion sources with total coal-fired heat input capacity greater than one hundred (100) and less than one thousand five hundred (1,500) MMBtu per hour shall submit quarterly reports of the calendar month average coal sulfur content, coal heat content, and sulfur dioxide emission rate in pounds per MMBtu and the total monthly coal consumption.

(3) All other fuel combustion sources shall submit reports of calendar month average sulfur content, heat content, fuel consumption, and sulfur dioxide emission rate in pounds per MMBtu upon request.

(d) Fuel sampling and analysis data shall be collected pursuant to the procedures specified in 326 IAC 3-7-2 or 326 IAC 3-7-3 for coal combustion or 326 IAC 3-7-4 for oil combustion. Computation of calculated sulfur dioxide emission rates from fuel sampling and analysis data shall be based on the emission factors contained in U.S. EPA publication AP-42* unless other emission factors based on site-specific sulfur dioxide measurements are approved by the commissioner and U.S. EPA. Fuel sampling and analysis data shall be collected as follows:

(1) For coal-fired fuel combustion sources with heat input capacity greater than or equal to one thousand five hundred (1,500) MMBtu per hour, compliance shall be determined using a thirty (30) day rolling weighted average sulfur dioxide emission rate in pounds per MMBtu unless a shorter averaging time or alternate averaging methodology is specified for a source under this article.

(2) For all other combustion sources, compliance shall be determined using a calendar month average sulfur dioxide emission rate in pounds per MMBtu unless a shorter averaging time or alternate averaging methodology is specified for a source under this article.

(e) Subsection (c) does not apply when continuous emission monitoring data collected and reported under 326 IAC 3-5 is used as the means for determining compliance with the emission limitations in this article.

(f) Owners or operators of sources or emission units subject to restrictions on the number of operating hours in 326 IAC 7-4 shall maintain, and make available to the department upon request, a log of operating hours for each emission unit.

(g) When determining compliance using continuous emission monitoring data, the diluent cap methodology under 40 CFR 75 may be used to calculate emissions in lbs/MMBtu.

~~(f)~~ **(h)** Compliance or noncompliance with the emission limitations contained in 326 IAC 7-1.1 or 326 IAC 7-4 may be determined by an appropriate method as follows:

(1) A stack test conducted in accordance with 326 IAC 3-6 using procedures in 40 CFR 60, Appendix A, Method 6*, 6A*, 6C*, or 8*.
(2) A continuous emission monitoring system in accordance with 326 IAC 3-5.
(3) Source sampling in accordance with 326 IAC 3-6.
(4) Fuel sampling and analysis data collected in accordance with subsection (d) or 326 IAC 3-7.
(5) Other methods approved by the commissioner and U.S. EPA.

*These documents are incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of ~~Air Quality,~~ **Legal Counsel,** Indiana Government Center North, ~~Tenth Floor,~~ **Thirteenth Floor,** 100 North Senate Avenue, Indianapolis, Indiana 46204.

(Air Pollution Control Division; 326 IAC 7-2-1; filed Aug 28, 1990, 4:50 p.m.: 14 IR 52; filed Jan 30, 1998, 4:00 p.m.: 21 IR 2078; errata filed Feb 9, 1999, 4:06 p.m.: 22 IR 2006; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477; errata filed Nov 7, 2001, 3:00 p.m.: 25 IR 813; errata filed Dec 12, 2002, 3:30 p.m.: 26 IR 1565; filed Aug 26, 2004, 11:30 a.m.: 28 IR 42; filed May 25, 2005, 10:50 a.m.: 28 IR 2953; filed Aug 11, 2011, 1:54 p.m.: 20110907-IR-326050330FRA)

SECTION 3. 326 IAC 7-4-2 IS AMENDED TO READ AS FOLLOWS:

326 IAC 7-4-2 Marion County sulfur dioxide emission limitations before October 4, 2017

Authority: IC 13-14-8; IC 13-17-3-4
Affected: IC 13-12; IC 13-14-4-3; IC 13-16-1

Sec. 2. **Before October 4, 2017,** the following sources and ~~facilities~~ **emission units** located in Marion County shall comply with the sulfur dioxide emission limitations in pounds per million Btu (lbs/MMBtu) and pounds per hour (lbs/hr), unless otherwise specified, and other requirements:

Source	~~Facility~~ **Emission Unit** Description	Emission Limitations lbs/MMBtu	**Emission Limitations** lbs/hr
~~(1) Acustar~~	~~Boiler 1~~	~~2.82~~	~~109.98~~
	~~Boiler 2~~	~~2.82~~	~~109.98~~
	~~Boiler 3~~	~~2.82~~	~~109.98~~
~~(2) Allison Gas Turbine-Plant 5~~	~~Boiler 1~~	~~3.99~~	~~299.4~~
	~~Boiler 2~~	~~3.99~~	~~299.4~~
	~~Boiler 3~~	~~3.99~~	~~299.4~~
	~~Boiler 4~~	~~3.99~~	~~299.4~~
~~(3) Amtrak~~	~~Boilers 61 and 62~~	~~3.30~~	~~208.15~~
~~(4) Bridgeport Brass~~	~~Boiler 1~~	~~3.55~~	~~135.8~~
	~~Boiler 2~~	~~3.55~~	~~135.8~~
	~~Boiler 3~~	~~3.55~~	~~135.8~~
~~(5) Central Soya~~	~~Boiler~~	~~4.32~~	~~272.0~~
~~(6) Central State~~	~~Boiler 3~~	~~3.39~~	~~111.8~~
	~~Boiler 7~~	~~3.39~~	~~169.5~~

	~~Boiler 8~~	~~3.39~~	~~169.5~~
~~(7) Detroit Diesel Allison Plant 3~~	~~Boiler 1~~	~~1.88~~	~~67.6~~
	~~Boiler 2~~	~~1.88~~	~~67.6~~
	~~Boiler 3~~	~~1.88~~	~~90.2~~
	~~Boiler 4~~	~~1.88~~	~~135.2~~
	~~Boiler 5~~	~~1.88~~	~~180.3~~
~~(8) Diamond Bathurst~~	~~#2 Furnace~~	~~1.40 pounds per ton~~	~~20.22~~
~~(9) Ford~~	~~Boiler 1~~	~~2.43~~	~~177.38~~
	~~Boiler 2~~	~~2.43~~	~~354.77~~
	~~Boiler 3~~	~~2.43~~	~~354.77~~
~~(10) Fort Harrison~~	~~Boiler 1~~	~~2.92~~	~~151.84~~
	~~Boiler 2~~	~~2.92~~	~~151.84~~
	~~Boiler 3~~	~~2.92~~	~~151.84~~
	~~Boiler 4~~	~~2.92~~	~~151.84~~
~~(11) G.M. Truck & Bus Group~~	~~Boiler 1~~	~~2.31~~	~~187.1~~
	~~Boiler 2~~	~~2.31~~	~~187.1~~
	~~Boiler 3~~	~~2.31~~	~~106.3~~
~~(12) Indiana Girls School~~	~~Boiler~~	~~6.00~~	~~46.9~~
~~(13) IPL Perry W~~	~~Boiler 17~~	~~6.0~~	~~1,320.0~~
	~~Boiler 18~~	~~6.0~~	~~1,320.0~~
~~(14) Indianapolis Sludge Incinerator~~	**(A)** Incinerator 1	2.0 pounds per ton	14.19
(1) Belmont Advanced Wastewater	**(B)** Incinerator 2	2.0 pounds per ton	14.19
Treatment Plant	**(C)** Incinerator 3	2.0 pounds per ton	14.19
Source ID No. 00032	**(D)** Incinerator 4	2.0 pounds per ton	14.19
	~~Incinerator 5~~	~~2.0 pounds per ton~~	~~14.19~~
	~~Incinerator 6~~	~~2.0 pounds per ton~~	~~14.19~~
	~~Incinerator 7~~	~~2.0 pounds per ton~~	~~14.19~~
	~~Incinerator 8~~	~~2.0 pounds per ton~~	~~14.19~~
~~(15) Marathon Petroleum Indiana Refining Division~~	~~H-H1~~	~~1.92~~	~~36.46~~
	~~H-H2~~	~~1.92~~	~~36.46~~
	~~H-H3~~	~~1.92~~	~~38.38~~
	~~P-H1~~	~~1.92~~	~~89.03~~
	~~P-H2~~	~~1.92~~	~~82.12~~
	~~P-H3~~	~~1.92~~	~~30.32~~
	~~P-H4~~	~~1.92~~	~~33.19~~
	~~P-H5~~	~~1.92~~	~~9.98~~
	~~Alky Reboiler~~	~~1.92~~	~~53.15~~
	~~Crude Heater~~	~~1.92~~	~~268.05~~
	~~Vacuum Heater~~	~~1.92~~	~~99.20~~
	~~Sulfur Recovery~~	~~189.0 pounds per ton sulfur~~	~~88.17~~
	~~FCC (Proc)~~	~~3.92 pounds per ton~~	~~506.37~~
	~~CO Boiler~~	~~1.92~~	~~228.72~~
	~~FCC Chg. Htr.~~	~~1.92~~	~~88.26~~
	~~GH-1~~	~~1.92~~	~~81.36~~
~~(16) Navistar~~	~~Boiler 1~~	~~2.98~~	~~193.72~~
	~~Boiler 2~~	~~2.98~~	~~193.72~~
	~~Boiler 3~~	~~2.98~~	~~193.72~~
~~(17) Quaker Oats~~	~~Boiler 1~~	~~2.79~~	~~195.3~~
	~~Boiler 2~~	~~2.79~~	~~195.3~~
	~~Murray Boiler~~	~~0.50~~	~~50.1~~
~~(18)~~ **(2)** Quemetco **Source ID No. 00079**	Reverberatory Furnace	24.6 pounds per ton	617.0
~~(19) Refined Metals~~	~~Blast Furnace~~	~~10.8 pounds per ton~~	~~64.8~~

~~(20) Reilly Industries~~ **(3) Vertellus Agriculture and Nutrition Specialties Source ID No. 00315**	**(A)** 2722 W	1.25	114.75
	(B) 2726 S	1.25	49.1
	(C) 186 N	1.25	46.0
	(D) 2707 V	1.25	20.0
	(E) 112 E	0.0**	0.0**
	~~2710 P~~	~~0.0**~~	~~0.0**~~
	~~Riley~~	~~1.25~~	~~64.75~~
	~~B & W~~	~~1.25~~	~~49.1~~
	(F) 2724 W	1.25	26.3
	(G) 2714 V	1.25	18.8
	(H) 2729 Q	1.25	3.8
	(I) 2740 Q	1.25	7.5
	(J) 732714	1.25	45.0
	(K) 2728 S	1.25	7.5
	(L) Still	~~0.0**~~ **less than 0.05**	0.0**
	(M) Kettle	~~0.0**~~ **less than 0.05**	0.0**
	(N) 2607 T	~~0.0**~~ **less than 0.05**	0.0**
	~~702611~~	~~0.0**~~	~~0.0**~~
	(O) 722804	~~0.0**~~ **less than 0.05**	0.0**
	(P) 2706 Q	~~0.0**~~ **less than 0.05**	0.0**
	~~2713 W~~	~~0.0**~~	~~0.0**~~
	~~2714 W~~	~~0.0**~~	~~0.0**~~
	~~2720 W~~	~~0.0**~~	~~0.0**~~
~~(21) Rexnord Link Belt Bearing~~	~~Boiler A~~	~~3.28~~	~~101.7~~
	~~Boiler B~~	~~3.28~~	~~101.7~~
	~~Boiler C~~	~~0.0*~~	~~0.0*~~
~~(22) Rexnord Link Belt Chain~~	~~Boiler 1~~	~~3.68~~	~~117.8~~
	~~Boiler 2~~	~~3.68~~	~~117.8~~
	~~Boiler 3~~	~~3.68~~	~~117.8~~
~~(23) Thomson Consumer Electronics~~	~~Boiler 1~~	~~1.95~~	~~39.0~~
	~~Boiler 2~~	~~1.95~~	~~39.0~~
	~~Boiler 3~~	~~1.95~~	~~146.3~~
	~~Boiler 4~~	~~1.95~~	~~146.3~~
~~(24) Union Carbide~~	~~Boiler 1~~	~~3.85~~	~~92.4~~
	~~Boiler 2~~	~~3.85~~	~~106.6~~
	~~Boiler 3~~	~~3.85~~	~~148.2~~
~~(25) Western Select Properties~~	~~Boiler 2~~	~~2.52~~	~~189.06~~
	~~Boiler 3~~	~~2.52~~	~~189.06~~
	~~Boiler 4~~	~~2.52~~	~~189.06~~
	~~Boiler 5~~	~~2.52~~	~~252.07~~
~~(26) Wishard~~	~~Boiler 1~~	~~4.04~~	~~105.0~~
	~~Boiler 2~~	~~4.04~~	~~105.0~~
	~~Boiler 3~~	~~4.04~~	~~105.0~~

~~**Less than 0.05~~

~~(27) Allison Gas Turbine Operations~~ **(4) Rolls-Royce Corporation** Plant 8, **Source ID No. 00311,** shall comply with the sulfur dioxide emission limitations ~~provided in clause (A) or (B)~~ and other requirements as follows:

(A) **Babcock and Wilcox** Boilers ~~2 through 11~~ **3 (0070-58), 4 (0070-59), and Combustion Engineering Boilers 7-10 (0070-62 through 0070-65)** may burn **either:**

(i) natural gas at any time; **or**

~~(B) Babcock and Wilcox Boilers 2 through 6 and Combustion Engineering Boilers 7 through 11 may burn~~ **(ii)** fuel oil with a sulfur dioxide emission limitation of two and one-tenth (2.1) lbs/MMBtu each during periods when ~~one (1) of the following conditions is met~~ **either**

~~(i) Fuel oil is burned in no more than three (3) Babcock and Wilcox boilers, and fuel oil is not burned in any combustion engineering boiler.~~

~~(ii)~~ fuel oil is burned in no more than:

(AA) two (2) Babcock and Wilcox boilers and no more than two (2) combustion engineering boilers; **or**

~~(iii) Fuel oil is burned in no more than~~ **(BB)** one (1) Babcock and Wilcox boiler and no more than three (3) combustion engineering boilers.

~~(C)~~ **(B)** A log of hourly operational status and fuel type for each boiler shall be maintained at the plant and made available to the department upon request.

(C) A daily summary of operating status and fuel type for each boiler for each day of a calendar quarter shall be submitted to the department on a quarterly basis.

(D) ~~Allison Gas Turbine Operations~~ **Rolls-Royce Corporation** Plant 8 shall ~~erect~~ **maintain** a twenty (20) foot stack extension with a diameter at the extension outlet of four (4) feet for each stack serving Boilers ~~2 through 6 in accordance with the following schedule:~~

~~(i) Complete design, specifications, and construction drawings and award contracts by August 2, 1988.~~

~~(ii) Complete installation of stack extensions by December 2, 1988.~~ **3 (0070-58) and 4 (0070-59).**

~~(28) Indianapolis Power and Light~~ **(5) Citizens Thermal, C.C.** Perry K **Steam Plant, Source ID No. 00034,** shall comply with the sulfur dioxide emission limitations in lbs/MMBtu and other requirements as follows:

~~Boiler Number~~	~~Emission Limitations~~
~~(A) 17 and 18~~	~~0.3~~
~~(B) 11, 12, 13, 14, 15, and 16~~	~~2.1~~

(A) Boiler numbers 17 and 18 shall not exceed 0.3 lbs/MMBtu.

(B) Boiler numbers 11, 12, 13, 14, 15, and 16 shall not exceed 2.1 lbs/MMBtu.

(C) As an alternative to the emission limitations in clause (B), sulfur dioxide emissions from Boilers 11, 12, 13, 14, 15, and 16 may comply with any one (1) of the sets of emission limitations in lbs/MMBtu as follows:

	Boiler Number	Emission Limitations
(i)	13, 14, 15, and 16	0.0
	11 and 12	4.4
(ii)	11, 12, 15, and 16	0.0
	13 and 14	4.4
(iii)	11, 12, 13, and 14	0.0
	15 and 16	4.4
(iv)	11, 12, 15, and 16	3.0
	13 and 14	0.3
(v)	11 and 12	0.3
	13, 14, 15, and 16	3.0

(D) **Citizens Thermal shall notify** the department ~~or the Indianapolis Air Pollution Control Division shall be notified~~ prior to the ~~reliance~~ **use** by ~~Indianapolis Power and Light on~~ **Citizens Thermal of** any one (1) of the sets of alternative emission limitations specified in clause (C).

(E) A log of hourly operating status for each boiler shall be maintained and made available to the department upon request.

(F) A daily summary indicating which boilers were in service during the day shall be submitted to the department quarterly. In addition, records of the daily average sulfur content, heat content, and sulfur dioxide emission rate for each day in which an alternative set of emission limitations specified in clause (C) is used shall be submitted to the department quarterly.

~~(F)~~ **(G)** For the purposes of ~~326 IAC 7-2-1(c)(1),~~ **326 IAC 7-2-1(d)(1),** during thirty (30) day periods in which ~~Indianapolis Power and Light~~ **Citizens Thermal** relies on more than one (1) set of emission limitations specified in clauses (B) ~~through~~ **and** (C), a separate thirty (30) day rolling weighted average for each set of limitations shall be determined. Each thirty (30) day rolling weighted average shall be based on data from the previous thirty (30) operational days within the last ninety (90) days for that set of limitations. If ~~Indianapolis Power and Light~~ **Citizens Thermal** does not operate thirty (30) days under any one (1) set of limitations within the last ninety (90) days, the rolling weighted average shall be based on all operational days within the last ninety (90) days for that set of limitations.

~~(G) Boilers 11 through 16 shall be limited to six and zero tenths (6.0) lbs/MMBtu each until Boilers 11 through 16 achieve compliance with the sulfur dioxide emission limitations specified in clauses (B) through (C). Compliance with the emission limitations specified in clauses (B) through (C) shall be achieved according to the following schedule:~~

~~(i) Complete engineering analysis of modifications by April 2, 1988.~~

~~(ii) Complete testing and design of modifications and place orders for necessary equipment by May 2,~~

~~1989.~~

~~(iii) Complete installation of necessary equipment and achieve compliance with emission limitations specified in clauses (B) through (C) by June 2, 1990.~~

~~(29)~~ **(6)** Indianapolis Power ~~and~~ **&** Light ~~Stout~~ **Company Harding Street Generating Station, Source ID No. 00033,** shall comply with the sulfur dioxide emission limitations in lbs/MMBtu and other requirements as follows:

	Boiler/Turbine Number	Emission Limitations
(A)	Boiler 70	5.3
(B)	Boilers 50 and 60	4.7
	Boilers 1 through 8	0.0
	Boilers 9 and 10 and Gas Turbines 1, 2, and 3	0.35

(C) As an alternative to the emission limitations in clause (B), sulfur dioxide emissions from Boilers 50, 60, and 1 through 10 and Gas Turbines 1, 2, and 3 may comply with any one (1) of the sets of emission limitations in lbs/MMBtu as follows:

	Boiler/Turbine Number	Emission Limitations
(i)	Boilers 50 and 60	5.2
	Boilers 1 through 10 and Gas Turbines 1, 2, and 3	0.0
(ii)	Boilers 50 and 60	5.0
	Boilers 1 through 10	0.0
	Gas Turbines 1, 2, and 3	0.4
(iii)	Boilers 50 and 60	4.1
	Boilers 1 through 8	0.26
	Boilers 9 and 10	0.35
	Gas Turbines 1, 2, and 3	0.3
(iv)	Boilers 50 and 60	3.9
	Boilers 1 through 8	0.34
	Boilers 9 and 10 and Gas Turbines 1, 2, and 3	0.35

(D) **Indianapolis Power & Light Company shall notify** the department ~~or the Indianapolis Air Pollution Control Division shall be notified~~ prior to the ~~reliance~~ **use** by Indianapolis Power ~~and~~ **&** Light ~~on~~ **Company of** any one (1) of the sets of alternative emission limitations specified in clause (C).

(E) A log of hourly operating status for each boiler shall be maintained and made available to the department upon request.

(F) A daily summary indicating which boilers were in service during the day shall be submitted to the department quarterly. In addition, records of the daily average sulfur content, heat content, and sulfur dioxide emission rate for each day in which an alternative set of emission limitations specified in clause (C) is used shall be submitted to the department quarterly.

~~(F)~~ **(G)** For the purposes of ~~326 IAC 7-2-1(c)(1),~~ **326 IAC 7-2-1(d)(1),** during thirty (30) day periods in which Indianapolis Power ~~and~~ **&** Light **Company** relies on more than one (1) set of emission limitations specified in clauses (B) ~~through~~ **and** (C), a separate thirty (30) day rolling weighted average for each set of limitations shall be determined. Each thirty (30) day rolling weighted average shall be based on data from the previous thirty (30) operational days within the last ninety (90) days for that set of limitations. If Indianapolis Power ~~and~~ **&** Light **Company** does not operate thirty (30) days under any one (1) set of limitations within the last ninety (90) days, the rolling weighted average shall be based on all operational days within the last ninety (90) days for that set of limitations.

~~(G)~~ **(H)** Indianapolis Power ~~and~~ **&** Light **Company** shall install **and maintain** a stack diameter restriction for the stack serving Boilers 50 and 60. The stack diameter restriction shall reduce the diameter to six and one-half (6 1/2) feet at the tip of the stack. ~~The installation of the stack diameter restriction shall be in accordance with the following schedule:~~

~~(i) Complete preliminary design of modifications by December 2, 1988.~~

~~(ii) Place orders for necessary modification by July 2, 1989.~~

~~(iii) Complete installation by February 2, 1990.~~

~~(30) Citizens Gas & Coke Utility shall comply with the sulfur dioxide emission limitations, depending on which battery or combination of batteries are in operation, as follows:~~

~~Description~~	~~Emission Limitations (lbs/ton of coal)~~	~~Emission Limitations (lbs/hour)~~
~~(A) Batteries 1, E, & H~~	~~0.67~~	~~78.02~~
~~(B) Battery 1~~	~~0.23~~	~~15.70~~
~~(C) Batteries 1 & E~~	~~0.49~~	~~46.86~~

~~(D) Batteries 1 & H~~	~~0.50~~	~~46.86~~
~~(E) Batteries E & H~~	~~0.79~~	~~62.32~~
~~(F) Battery E~~	~~0.79~~	~~31.16~~
~~(G) Battery H~~	~~0.79~~	~~31.16~~

~~(H) The department and the Indianapolis office of environmental services shall be notified in writing prior to the reliance by Citizens Gas & Coke Utility on an emission limitation other than clause (A).~~
~~(I) Gas used for underfiring Battery 1 shall not exceed twenty (20) grains of H_2S per one hundred (100) standard cubic feet.~~
~~(J) Citizens Gas & Coke Utility shall desulfurize the coke oven gas produced by Batteries 1, E, and H.~~
~~(K) Citizens Gas & Coke Utility shall monitor the hydrogen sulfide (H_2S) content of the coke oven gas used for underfiring each battery by sampling and analyzing the coke oven gas for H_2S content at least once per day. The H_2S content of the gas shall be sampled using Determination of Hydrogen Sulphide Content, Cadmium Acetate Method, Method Number DIN 51855 Part 4 (January 1979)*.~~
~~(L) Sulfur dioxide emissions in pounds per tons of coal (lbs/ton of coal) and pounds per hour (lbs/hr) shall be calculated using the data on H_2S content and organic sulfur content in the coke oven gas. The total sulfur dioxide emissions shall include all sulfur compounds. Citizens Gas & Coke Utility shall submit to the department and the Indianapolis office of environmental services within thirty (30) days of the end of each calendar quarter the calculated sulfur dioxide emission rate in pounds per tons of coal (lbs/ton of coal) and pounds per hour (lbs/hr) for each day during the calendar quarter.~~
~~(M) All monitoring and testing data and results shall be recorded, and all records shall be kept for a period of three (3) years. Citizens Gas & Coke Utility shall submit the monitoring and testing records to the department upon request.~~

~~*These documents are incorporated by reference. Copies are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204.~~

(Air Pollution Control Division; 326 IAC 7-4-2; filed Aug 28, 1990, 4:50 p.m.: 14 IR 65; filed Feb 9, 1999, 4:22 p.m.: 22 IR 1959; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477; filed Feb 20, 2007, 3:15 p.m.: 20070321-IR-326050118FRA)

SECTION 4. 326 IAC 7-4-2.1 IS ADDED TO READ AS FOLLOWS:

326 IAC 7-4-2.1 Marion County sulfur dioxide emission limitations

Authority: IC 13-14-8; IC 13-17-3
Affected: IC 13-15; IC 13-17

Sec. 2.1. (a) On and after October 4, 2017, the following sources and emission units located in Marion County shall comply with the sulfur dioxide emission limit and other requirements, as follows:

	Source	Emission Unit Description	Emission Limit (lbs/hour) or Other Requirements	Emission Limit (lbs/MMBtu)
(1)	Citizens Thermal - Perry K Source ID No. 00034	(A) Boiler 11	73.6	0.2
		(B) Boiler 13	80.6	0.2
		(C) Boiler 14	80.6	0.2
		(D) Boilers 12, 15, and 16	Burn natural gas	
		(E) Boiler 17	72.6	0.3
		(F) Boiler 18	72.6	0.3
(2)	Belmont Advanced Wastewater Treatment Plant Source ID No. 00032	Incinerator 1, Incinerator 2, Incinerator 3, and Incinerator 4	Comply with SO_2 limit in 40 CFR 60, Subpart MMMM* or 40 CFR 60, Subpart LLLL*	
(3)	Rolls-Royce Source ID No. 00311	(A) Boiler 0070-58	0.07	0.0015
		(B) Boiler 0070-59	0.07	0.0015
		(C) Boiler 0070-62	0.37	0.0015
		(D) Boiler 0070-63	0.37	0.0015
		(E) Boilers 0070-64	Burn natural gas or	0.01

			landfill gas	
		(F) Boiler 0070-65	Burn natural gas or landfill gas	0.01
		(G) Generating Turbine 0070-80	Burn natural gas or landfill gas	0.01
		(H) 2 Gas Turbine Engines 0070-66		0.1
		(I) 12 Gas Turbine Engines 0070-67		0.05
		(J) 3 Gas Turbine Engines 0070-68c, 0070-68d, and 0070-68e		0.1
		(K) 2 Gas Turbine Engines 0070-68a and 0070-68b	Burn natural gas	
		(L) 3 Gas Turbine Engines 0070-69		0.1
		(M) Three Shack Heaters 0070-70	Burn natural gas	
		(N) Rental Generators		0.0015
		(O) Engine Test Cells (Plant 5 and 8)		0.1
		(P) Engine Test Cell Plant 5 0070-N6		0.05
		(Q) Engine Test Cell N16	25 foot vertical stack	
		(R) Engine Test Cell N19	20 foot vertical stack	
		(S) Engine Test Cell N20	18 foot vertical stack	
		(T) Engine Test Cell N21	20 foot vertical stack	
		(U) Engine Test Cell N22	20 foot vertical stack	
		(V) Engine Test Cell N23	30 foot vertical stack	
		(W) Engine Test Cell N24	20 foot vertical stack	
(4)	Vertellus Agriculture and Nutrition Specialties Source ID No. 00315	(A) 70K Boiler 70-2722W	18.4	0.20
		(B) 30K Boiler 30-2726S	9.8	0.25
		(C) 28K Boiler 28-186N	9.9	0.27
		(D) Boiler CB-70K	Burn natural gas	
		(E) BM Furnace BM2724W	1.1	0.05
		(F) Box Furnace BX2707V	0.8	0.05
		(G) DAB Furnace 732714	2.8	0.05
		(H) Born Heater 722804	0.34	0.05
		(I) Born Heater Furnace BXS2706Q	0.3	0.05
		(J) EP Furnace EP2729Q	0.15	0.05
		(K) CB20 CB600-300 Boiler	2.3	0.09
		(L) 50K CN5-400 Boiler	5.5	0.09
		(M) BD Furnace BD2714V	0.75	0.05
		(N) Heater BS2740Q	0.3	0.05
		(O) Heater BT2728S	0.3	0.05
		(P) Furnace HW-925.001	12.25	1.25
		(Q) CS Kettle Born Heater	Burn natural gas	
		(R) CS Still Born Heater	Burn natural gas	
		(S) Born Hot Oil Furnace (Process Heater) Unit 2607T	Burn natural gas	
(5)	Quemetco Source ID No. 00079	WESP Stack	52.0	
(6)	Indianapolis Power & Light Co. - Harding Street Generating Station Source ID No. 00033	(A) Boiler 9	Do not operate	
		(B) Boiler 10	Do not operate	
		(C) Boiler 50	Burn natural gas	
		(D) Boiler 60	Burn natural gas	
		(E) Boiler 70	Burn natural gas	
		(F) Gas Turbine 1	29.9	0.1
		(G) Gas Turbine 2	29.9	0.1

(H) Gas Turbine 4	**87.5**	**0.1**
(I) Gas Turbine 5	**86.7**	**0.1**
(J) Gas Turbine 6	**Burn natural gas**	
(K) Emergency Generator	**500 hour calendar year operating limit**	

(b) Compliance with the emission limit in subsection (a)(5) shall be determined by using quality assured hourly average continuous emission monitoring system data.

***These documents are incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Legal Counsel, Indiana Government Center North, Thirteenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204.**

(Air Pollution Control Division; 326 IAC 7-4-2.1)

SECTION 5. 326 IAC 7-4-3 IS AMENDED TO READ AS FOLLOWS:

326 IAC 7-4-3 Vigo County sulfur dioxide emission limitations before October 4, 2017

Authority: IC 13-14-8; IC 13-17-3-4
Affected: IC 13-12; IC 13-14-4-3; IC 13-16-1

Sec. 3. **Before October 4, 2017,** the following sources and ~~facilities~~ **emission units** located in Vigo County shall comply with the sulfur dioxide emission limitations in pounds per million Btu, unless otherwise specified, and other requirements:

Source	~~Facility~~ **Emission Unit** Description	Emission Limitations
~~(1) Alcan Rolled Products Co.~~	~~Sol Oil Boiler~~	~~0.51~~
	~~Foil Mill Boiler~~	~~0.51~~
	~~Oil Farm Boiler~~	~~0.51~~
	~~#2 Melter~~	~~1.60~~
	~~#3 Melter~~	~~1.60~~
	~~#4 Melter~~	~~1.60~~
	~~#5 Melter~~	~~1.60~~
	~~#6 Melter~~	~~1.60~~
	~~#7 Melter~~	~~1.60~~
	~~#53 Annealing Furnaces~~	~~1.60~~
~~(2) Bemis~~	~~Boiler~~	~~0.51~~
~~(3) CBS~~	~~#1 WH CB200-200~~	~~0.51~~
	~~#2 WH CB200-200~~	~~0.51~~
	~~#1 HC CB293-100~~	~~0.51~~
	~~#2 HC CB M & W 4000~~	~~0.51~~
	~~#3 HC CB M & W 4000~~	~~0.51~~
	~~#1 BP Springfield~~	~~0.51~~
~~(4) CF Industries~~	~~Process Murray Boiler 1~~	~~0.52~~
	~~Process Murray Boilers 2 and 3~~	~~0.52~~
~~(5)~~ **(1) SONY** Digital Audio Disc **Source ID No. 00032**	**(A)** #1 Kewanee Boiler	0.36
	(B) #2 Kewanee Boiler	0.36
~~(6) Doxsee Foods Corp.~~	~~Boiler~~	~~2.62~~
~~(7) General Housewares~~	~~Boiler 1A Ladd~~	~~6.00~~
	~~Boiler 2A Combustion Eng.~~	~~6.00~~
	~~#5 Enamel Furnace Radiant Tube~~	~~0.51~~
	~~#6 Enamel Furnace Muffle~~	~~0.51~~
~~(8) Hercules, Inc.~~ **(2) Taghleef Industries Source ID No. 00045**	**(A)** Murray Iron Works Boiler A	0.51
	(B) Murray Iron Works Boiler B	0.51
	(C) Clayton Boiler (Standby)	0.51
	(D) Nebraska Boiler	0.51

~~(9) Indiana State University~~	~~#2 Voight Boiler~~	~~5.64~~
	~~#3 Voight Boiler~~	~~5.64~~
	~~#5 B & W Boiler~~	~~5.64~~
	~~#4 Murray Boiler~~	~~0.37~~
~~(10) J.I. Case~~	~~No. 1 Riley Boiler~~	~~4.74~~
	~~No. 2 Riley Boiler~~	~~4.74~~
~~(11) Pfizer~~	~~Boiler 8~~	~~3.01~~
~~(12) Pillsbury (Terre Haute)~~	~~Boiler B~~	~~0.36~~
	~~Boiler C~~	~~2.62~~
	~~Boiler D~~	~~0.36~~
~~(13) Pitman-Moore~~	~~#9, #10, and #15 Boilers~~	~~4.58~~
	~~#16 Boiler~~	~~0.36~~
	~~East Plant Boiler~~	~~0.36~~
~~(14) Public Service Indiana~~ **(3) Duke Energy** Wabash River **Source ID No. 00021**	Boilers ~~1,~~ 2, 3, 4, 5, and 6	4.04
~~(15) Rose-Hulman~~	~~#1 Voight Boiler~~	~~2.26~~
	~~#2 Cleaver Brooks Boiler~~	~~0.51~~
	~~#4 Cleaver Brooks Boiler~~	~~0.51~~
~~(16) St. Mary's Sisters of Providence~~	~~#2 Voight Boiler~~	~~3.84~~
	~~#3 B & N Boiler~~	~~3.84~~
	~~#5 B & N Boiler~~	~~3.84~~
	~~#7 Voight Boiler~~	~~3.84~~
	~~#8 Voight Boiler~~	~~3.84~~
~~(17) Snacktime Company~~	~~#1 Boiler~~	~~0.52~~
	~~#12 Boiler~~	~~0.52~~
	~~#2, #3, #4, and #6 Fryer Oil Heaters~~	~~0.52~~
~~(18) Terre Haute Coke and Carbon~~	~~2 CB Boilers~~	~~1.79~~
	~~2 Standby Boilers~~	~~4.55~~
	~~No. 1 CB Underfire Stack~~	~~0.63~~
	~~No. 2 CB Underfire Stack~~	~~0.63~~
~~(19)~~ **(4)** Terre Haute Regional Hospital **Source ID No. 00046**	**(A)** #1 Boiler	0.45
	(B) (New) #2 Boiler	0.45
~~(20)~~ **(5)** Union Hospital ~~Energy Co.~~ **Source ID No. 00047**	2 Keeler Boilers	0.36
	~~3 Cleaver Brooks Boilers~~	~~0.36~~
~~(21) U.S. Penitentiary~~	~~#1, #2, and #3 Boilers~~	~~0.51~~
	~~2 Honor Farm Boilers~~	~~0.51~~
~~(22) Wabash Fibre Box~~	~~Cleaver Brooks Boiler~~	~~2.36~~
~~(23) Wabash Products Co.~~	~~Boiler~~	~~natural gas only~~
~~(24) Western Tar~~	~~Tar Division, Boiler A~~	~~0.36~~
	~~Tar Division, Boiler B~~	~~0.36~~
	~~Wood Division, Boiler A~~	~~0.36~~
	~~Wood Division, Boiler B~~	~~0.36~~
	~~Tar Division, Process Still~~	~~0.36~~
~~(25) Weston Paper~~	~~B-1 and B-4 Boilers~~	~~4.09~~
	~~B-5 Warehouse Boiler~~	~~2.62~~

(Air Pollution Control Division; 326 IAC 7-4-3; filed Aug 28, 1990, 4:50 p.m.: 14 IR 70; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477; filed Aug 31, 2004, 2:30 p.m.: 28 IR 117)

SECTION 6. 326 IAC 7-4-3.1 IS ADDED TO READ AS FOLLOWS:

326 IAC 7-4-3.1 Vigo County sulfur dioxide emission limitations

Authority: IC 13-14-8; IC 13-17-3
Affected: IC 13-15; IC 13-17

Sec. 3.1. (a) On and after October 4, 2017, the following sources and emission units located in Vigo County shall comply with the sulfur dioxide emission limits and other requirements, as follows:

	Source	Emission Unit Description	Emission Limit (lbs/hour) or Other Requirements	Emission Limit (lbs/MMBtu)
(1)	**Wabash River Combined Cycle Source ID No. 00147**	**Combustion Turbine Unit 1A**	**333.76**	**0.195**
(2)	**sgSolutions**	**(A) Tail Gas Incinerator Stack EP1**	**230.6**	
	Source ID No. 00091	**(B) Process Flare Unit 2**	**500 hour calendar year operating limit on coal/syngas**	
(3)	**SONY Digital**	**(A) #1 Kewanee Boiler**		**0.05**
	Audio Disc	**(B) #2 Kewanee Boiler**		**0.05**
	Source ID No. 00032	**(C) Unit 3 Burnham Boiler**		**0.05**
		(D) Unit 4 Burnham Boiler		**0.05**
		(E) Unit 5 Superior Boiler		**0.05**
		(F) Unit 6 Superior Boiler		**0.05**
		(G) Unit 18 Boiler		**0.05**
(4)	**Taghleef Industries**	**(A) Clayton Boiler (Standby)**	**0.03**	**0.0015**
	Source ID No. 00045	**(B) Nebraska Boiler**	**0.05**	**0.0015**
		(C) Nebraska-D Boiler	**Burn natural gas**	
(5)	**Terre Haute**	**(A) #1 Boiler**		**0.45**
	Regional Hospital Source ID No. 00046	**(B) New #2 Boiler**		**0.45**
(6)	**Union Hospital Source ID No. 00047**	**2 Keeler Boilers**		**0.36**
(7)	**Duke Energy -**	**(A) Boiler 6**	**1,499.5**	**0.5**
	Wabash River Generating Station Source ID No. 00021	**(B) Diesel Generators 7A, 7B, and 7C**	**500 hour calendar year operating limit (each)**	**0.05**

(b) Compliance with the emission limit in subsection (a)(1) shall be determined by using quality assured hourly average continuous emission monitoring system data.

(c) Compliance with the emission limit in subsection (a)(2)(A) shall be determined by calculating the thirty (30) unit operating day rolling arithmetic average emission rate at the end of each unit operating day using all of the quality assured hourly average continuous emission monitoring system data for the previous thirty (30) unit operating days. Unit operating day means a twenty-four (24) hour period that begins at midnight and ends the following midnight during which the unit is operated. It is not necessary for the unit to be operating the entire twenty-four (24) hour period.

(Air Pollution Control Division; 326 IAC 7-4-3.1)

SECTION 7. 326 IAC 7-4-11 IS AMENDED TO READ AS FOLLOWS:

326 IAC 7-4-11 Morgan County sulfur dioxide emission limitations before October 4, 2017

Authority: IC 13-14-8; IC 13-17-3
Affected: IC 13-15; IC 13-17

Sec. 11. **Before October 4, 2017,** Indianapolis Power ~~and~~ **&** Light **Company** (IPL) ~~Pritchard~~ **Eagle Valley** Generating Station, **Source ID No. 00004,** shall comply with the sulfur dioxide emission limitations in pounds per million Btu and other requirements as follows:

~~Facility~~ **Emission Unit** Description	Emission Limitations
(1) Units 1 and 2	0.37 each

(2) ~~Units 3, 4, 5, and 6 on and before September 30, 1990~~	~~6.0 each~~
Unit 3 ~~after September 30, 1990~~	0.37
(3) Units 4, 5, and 6 ~~after September 30, 1990~~	3.04 each

~~(3)~~ **(4)** As an exception to the emission limitations specified in ~~subdivision~~ **subdivisions** (2) and **(3),** after September 30, 1990, at any time in which IPL burns coal on Unit 3, sulfur dioxide emissions from Units 3, 4, 5, and 6 shall be limited to two and fifty-seven hundredths (2.57) pounds per million Btu each.

~~(4) Prior to October 31, 1989, IPL shall modify~~ **(5)** The two (2) stacks serving Units 3, 4, 5, and 6 ~~to increase the height of each stack to~~ **shall be** at least two hundred and eighty-one (281) feet above grade.

~~(5) Prior to February 28, 1989, IPL shall submit completed engineering plans and drawings of flue gas conditioning systems for Units 4 and 5 to the department. Prior to May 31, 1990, IPL shall complete installation of flue gas conditioning systems for Units 4 and 5.~~

(6) After September 30, 1990, on a day for which Unit 3 does not burn any coal, the limitations in ~~subdivision~~ **subdivisions** (2) **and (3)** are in effect, and compliance shall be determined as specified in ~~326 IAC 7-2-1(c).~~ **326 IAC 7-2-1(d).**

(7) After September 30, 1990, on a day for which Unit 3 burns any coal, the limitations in subdivision ~~(3)~~ **(4)** are in effect. As an exception to the requirements of ~~326 IAC 7-2-1(c)(1)~~ **326 IAC 7-2-1(d)(1)** on a day for which Unit 3 burns any coal, if the thirty (30) day rolling weighted average for any unit is above two and fifty-seven hundredths (2.57) pounds per million Btu, then ~~326 IAC 7-2-1(c)(1)~~ **326 IAC 7-2-1(d)(1)** does not apply, and the daily average emission rate for that unit for that day shall not exceed two and fifty-seven hundredths (2.57) pounds per million Btu.

(8) After September 30, 1990, for the purposes of determining compliance under ~~326 IAC 7-2-1(b),~~ **326 IAC 7-2-1(h)(1),** stack tests performed on Units 3, 4, 5, and 6 shall demonstrate compliance with the most stringent set of limits in effect at any time during the day prior to or during the test based on the Unit 3 operating status and fuel type as indicated by the log maintained pursuant to subdivision (9).

(9) After September 30, 1990, IPL shall maintain and make available to the department upon request a log of the operating status and fuel type used for Unit 3. In addition, in the quarterly report required by ~~326 IAC 7-2-1(a),~~ **326 IAC 7-2-1(c),** IPL shall submit to the department a daily summary indicating fuel type for Unit 3, and, for days on which Unit 3 burned any coal and any thirty (30) day rolling weighted average was greater than two and fifty-seven hundredths (2.57) pounds per million Btu, IPL shall submit to the department the daily average sulfur content, heat content, and sulfur dioxide emission rate for Units 3, 4, 5, and 6.

(Air Pollution Control Division; 326 IAC 7-4-11; filed Aug 28, 1990, 4:50 p.m.: 14 IR 76; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477)

SECTION 8. 326 IAC 7-4-11.1 IS ADDED TO READ AS FOLLOWS:

326 IAC 7-4-11.1 Morgan County sulfur dioxide emission limitations

Authority: IC 13-14-8; IC 13-17-3
Affected: IC 13-15; IC 13-17

Sec. 11.1. (a) On and after October 4, 2017, the following sources and emission units located in Morgan County shall comply with the sulfur dioxide emission limits and other requirements, as follows:

	Source	Emission Unit Description	Emission Limit (lbs/hour) or Other Requirements	Emission Limit (lbs/MMBtu)
(1)	**Indianapolis Power & Light Company (IPL)**	**(A) Combined Cycle Combustion Turbine 1 including duct burners**	**Burn natural gas**	
	- Eagle Valley Generating Station	**(B) Combined Cycle Combustion Turbine 2 including duct burners**	**Burn natural gas**	
	Source ID No. 00147	**(C) Auxiliary Boiler**	**Burn natural gas**	
		(D) Dew Point Heater	**Burn natural gas**	
(2)	**Hydraulic Press Brick**	**(A) Kiln 3**	**Do not operate**	
	Company (HPB)	**(B) Kiln 4**	**159.75**	**3.55**
	Source ID No. 00007	**(C) Kiln 5**	**322**	**4.6**

(b) HPB shall comply with the sulfur dioxide emission limits in subsection (a)(2) as follows:
(1) The emission limit applies to sulfur dioxide emissions from both the combustion of coal and the

processing of shale.
(2) HPB shall install and operate a limestone injection system to control sulfur dioxide emissions from Kiln 4 and Kiln 5.
(3) Monthly fuel sampling and analysis data shall be collected according to 326 IAC 7-2-1 for both coal and shale.
(4) HPB shall inject limestone at a rate sufficient to achieve compliance with the sulfur dioxide emission limits.
(5) HPB shall record the limestone federate to Kiln 4 and Kiln 5 at least two (2) times per production run or once every eight (8) hours.

(Air Pollution Control Division; 326 IAC 7-4-11.1)

SECTION 9. 326 IAC 7-4-15 IS ADDED TO READ AS FOLLOWS:

326 IAC 7-4-15 Pike County sulfur dioxide emission limitations

Authority: IC 13-14-8; IC 13-17-3
Affected: IC 13-15; IC 13-17

Sec. 15. (a) On and after October 4, 2017, the following sources and emission units located in Pike County shall comply with the sulfur dioxide emission limits and other requirements, as follows:

	Source	Emission Unit Description	Emission Limit (lbs/hour) or Other Requirements	Emission Limit (lbs/MMBtu)
(1)	Indianapolis Power & Light - Petersburg Generating Station Source ID No. 00002	(A) Unit 1	330.0	0.15
		(B) Unit 2	621.6	0.15
		(C) Unit 3	2,049.8	0.37
		(D) Unit 4	1,942.5	0.35
		(E) Diesel Generators PB-2, PB-3, and PB-4	500 hour calendar year operating limit (each)	
(2)	Hoosier Energy - Ratts Source ID No. 00001	(A) Boiler 1	58	0.05
		(B) Boiler 2	58	0.05
		(C) No. 2 Auxiliary Boiler	1	0.05

(b) Compliance with the emission limits in subsection (a) shall be determined by using quality assured hourly average continuous emission monitoring system data, except as allowed under subsection (c).

(c) As an alternative to the emission limits in subsection (a)(1)(A) though (a)(1)(D), Indianapolis Power & Light - Petersburg Generating Station may comply with the following:

	Emission Unit Description	Emission Limit (lbs/hour - 30 day rolling average)	Emission Limit (lbs/MMBtu - 30 day rolling average)
(1)	Unit 1	263.0	0.12
(2)	Unit 2	495.4	0.12
(3)	Unit 3	1,633.7	0.29
(4)	Unit 4	1,548.2	0.28

(d) Compliance with the emission limits in subsection (c) shall be determined by calculating the thirty (30) boiler operating day rolling arithmetic average emission rate at the end of each boiler operating day using all of the quality assured hourly average continuous emission monitoring system data for the previous thirty (30) boiler operating days. Boiler operating day means a twenty-four (24) hour period that begins at midnight and ends the following midnight during which any fuel is combusted at any time in the boiler. It is not necessary for the fuel to be combusted the entire twenty-four (24) hour period.

(e) Indianapolis Power & Light shall notify the department prior to the compliance date to indicate if compliance for Units 1 through 4 will be determined using the emission limits in subsection (a) or (c) and prior to switching from compliance with the set of emission limits in subsections from (a) to (c) or from (c) to (a). Indianapolis Power & Light may not switch between complying with the one (1) hour average

limits in subsection (a) and the thirty (30) day rolling average limits in subsection (c) unless Indianapolis Power & Light continues to show compliance with the one (1) hour average limit for each boiler until the first thirty (30) boiler operating day rolling arithmetic average emission rate is calculated.

(Air Pollution Control Division; 326 IAC 7-4-15)

SECTION 10. THE FOLLOWING ARE REPEALED: 326 IAC 7-4-2; 326 IAC 7-4-3; 326 IAC 7-4-11.

SECTION 11. SECTION 10 of this document takes effect October 4, 2017.

Notice of Public Hearing

Posted: 04/22/2015 by Legislative Services Agency
An html version of this document.